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HOOPER'S SPARKLING SELTZER

2s. 6d. per dozen. Six dozen Carriage free.

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Agreeably with a recent intimation from Messrs. JOHNSON & SONS, 23 Cross Street, Finsbury, London, E.C., that they have entirely transferred their Cyanide Business to us, we take this opportunity of asking your notice to some of the other Articles which we manufacture, and shall esteem your enquiries.

CYANIDE OF POTASSIUM (JOHNSON'S QUALITY.)

NICKEL SALTS, ACIDS, AND ALL PLATING CHEMICALS.
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Specially Prepared for **PROCESS WORK.**

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BATTERSEA SQUARE.

NEAREST STATION,
OLD BATTERSEA STATION,
West London Extension Railway.

The Chemist & Druggist

SUPPLEMENT

SATURDAY, FEBRUARY 6, 1897.

Businesses Wanted
Businesses for Disposal
Premises to Let
Auction Sales

ALSO EXCHANGE COLUMN.
For Bargains see the last page of this Supplement.

Partnerships
Situations Vacant
Situations Wanted
Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

THE CIRCULATION OF THE SUPPLEMENT THIS WEEK EXCEEDS 14,000.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

VENDORS have the advantage of Messrs. O. & Co.'s direct attention and advice as to value without additional fee.

PURCHASERS are invited to forward a statement of their requirements, which will be notified in a register free of charge.

VALUATIONS having always been a prominent feature, Messrs. O. & Co. trust that the lengthened period during which they have enjoyed the confidence of the profession will be regarded as a sufficient proof of the sincerity of their endeavours to conduct these transactions in an honourable and straightforward manner.

1.—**£900.—WEST END** (Illness cause of sale).—First-class Dispensing business (very much neglected); returns under manager about £900; commodious house held on long lease; capital position; price about £500 (about the value of stock and fixtures).

2.—**£650.—LONDON, EAST**.—Ready-money Retail, situate in a main thoroughfare; returns £650 yearly under management; handsomely fitted up and good stock; vendor will sell at valuation of stock and fixtures, or lump sum if desired.

3.—**£1,000.—LONDON, N.W.**—Handsomely-fitted Pharmacy, situate in a prominent position; old-established concern; returns £1,000 yearly; convenient house, on lease; terms, lump sum or valuation, about £1,200 required.

4.—**£400.—KENT**.—Retail and Dispensing; returns £400; handsomely-fitted shop, and good stock; the profits are above the average; price to an immediate purchaser, £250.

5.—**£1,000.—LONDON** (Easy distance from Bank of England).—Dispensing and Retail; handsome shop and good stock; the returns (about £1,000 yearly) can easily be increased; full inspection invited; price about £1,000; part can remain if wished.

6.—**£450.—LONDON (Marset Locality), N.**—Good investment or a pushing man; returns £450; large house, rental moderate; well-fitted up. The position is well adapted for modern trading, which has not hitherto been adopted.

7.—**£500.—DEVON (South)**.—Retail and own Proprietary articles; returns nearly £500; vendor retiring, having held the business 20 years; up, stock, &c., all in good working order; large house, good garden (fruit and vegetables), low rent; price about £250.

8.—**£800.—SUFFOLK**.—Old-established Business, situate in a flourishing town; returns nearly £800 last year, *very good profits*; single-fronted shop and good stock; good-sized house with garden, easy rental; price £500.

9.—**£1,100.—CORNWALL**.—Mixed Business; old-established concern; returns £1,100 per annum; *profit large*; vendor having another business which requires his attention, will deal liberally with an immediate purchaser; about £550 required.

10.—**£2,000.—MIDLAND TOWN**.—Mixed Business; returns exceed £2,000 yearly; *net profit nearly £500*; well-fitted shop and capital stock; convenient house, on lease; valuation about £1,200; offer wanted.

11.—**£550.—STAFFS**.—Old-established Business, well situate in main street; returns average £550 yearly, *very profitable*, being largely from own Proprietaries; nicely-fitted shop, very low rental; valuation only required; no goodwill; illness cause of sale.

12.—**£1,700.—KENT (Central position)**.—Old-established Business, situate in the main thoroughfare; returns average £1,700 yearly, *with good profits*; the shop is large, and well fitted; commodious residence, on lease; terms, £150 for goodwill and valuation of stock and fixtures.

13.—**£750.—SOUTH COAST**.—Must be sold; valuation of stock and fixtures only required; old-established business; situate in the High Street; handsomely-fitted Pharmacy and good stock; good residence, held on lease; immediate offer wanted.

14.—**DORSET**.—Light Retail and Dispensing; very little opposition; returns nearly £500; *last year's profits above the average*; no stores near; well-fitted shop and good stock; good house; rental low; price about £350; full particulars on application.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London Agent.

SPECIAL NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale suitable for Gentlemen with Small Capital, from £200 to £500.

ORRIDGE & CO., 32 LUDGATE HILL, LONDON, E.C.

BUSINESSES WANTED.

WANTED, a Shop, with house attached, in a good rising neighbourhood, where there is an opening for a first-class Drug Store; side door to house preferred. Full particulars to "Safe" (279/24), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a good Chemist's Business, returning from £1,000 to £1,500 yearly; provincial town preferred; can purchase at once; banker's reference given if desired. Address, in first instance, "Pharmacist" c/o Messrs. Wright, Layman & Umney, 50 Southwark Street, London, E.C.

WANTED, a genuine Dispensing, Prescribing, and Light Retail Business, showing net profit of £300 to £400 yearly; Midlands preferred; prompt cash; references exchanged if desired; advertiser is open to purchase business up to £1,500 returns. B., 133 Brownhill Road, Catford, S.E.

WANTED, for Cash, a good Dispensing or Country Business; North or Midlands preferred; must hear strict investigation; references exchanged; all communications treated confidentially; no agents. State particulars and price to "Menthol" (281/29), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A PHARMACEUTICAL Chemist and qualified Dental Surgeon is open to purchase Chemist's Business with Dental connection, or could join Chemist in conducting a Pharmacy and Dental practice; references exchanged. Apply, with full particulars, "Pharmacist", (37/69), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIPS.

EARLY Purchase or Partnership.—Wanted, engagement as Manager or Assistant in good modern Cash business, with view to above; aged 26; can invest up to £1,000. Particulars to W. Y. (15), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT, with view to Partnership.—Chemist wishes to meet with a smart qualified man who will take an interest in pushing business for mutual benefit; knowledge of Photography necessary; good opportunity for young man with only small capital at command to enter business. Address, "Drugphot" (1/9), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

APPRENTICESHIPS.

RETAIL.

APPRENTICE wanted; comfortable home and up-to-date training in Manufacturing, Wholesale, and General Retail, including Photographic trade; moderate premium. Apply, G. A. Grierson, 312 High Street, Lincoln.

F. J. BRETT

VALUER,**37 Waterloo Street, LEICESTER.***References to Principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.***BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS.****NO CHARGE TO BUYERS.**

£800 returns.—**NOTTS.**—General Retail, Oils and Colours. Has done under personal attention £1,400, and can again; price £600.

£850 returns.—**LANC.**—General Retail in good position of large town; valuation about £500, or could be reduced if desired.

£1,300 returns.—**SUBURB OF LARGE MIDLAND TOWN.**—Light Retail, Dispensing, Prescribing, and good Specialities; net profit £400; satisfactory reason for sale; price £950.

£700 returns.—**GLOUCESTERSHIRE.**—Unopposed Light Retail, Dispensing and Prescribing; good house, garden, &c.; rent £26; net profit £250; price £425.

£1,800 returns.—**MIDLANDS.**—General Cash Retail; under assistant; growing part; capable man giving personal attention would double returns; price £700.

£675 returns.—**LEICESTERSHIRE.**—Good-class Retail in growing market-town; excellent house; premises and garden; price £550.

£500 returns.—**DEVON.**—Light Retail in very pretty district; good house; rent £25; price £225.

£700 returns.—**LANCASHIRE.**—Exceptionally fine position of large town; only wants handling well to treble returns; price £600.

£1,200 returns.—**LONDON.**—General Light Retail, with large amount of own preparations; large house; garden; net profit £400; price £850.

£800 returns.—**LONDON.**—Light Retail, Prescribing, and Fair Dispensing; net profit £250; price £550.

£650 returns.—**LONDON.**—Dispensing and Light Retail with valuable proprietary article stocked by wholesale houses, and capable of great extension; price £450.

£700 returns.—**LONDON.**—Unopposed good medium class Retail; good house, &c.; rent £40; ill-health cause of sale; price £400.

WANTED, high-class Dispensing, returning to £1,500 to £2,000.

WANTED, good country Retail, in market town preferred; returning £1,000 to £1,500.

WANTED, similar to above, with local wholesale not objected to.

F. J. BRETT has buyers for above businesses ready to pay cash and take immediate possession.

CORRESPONDENCE INVITED.

BERDOE & CO.

CHEMISTS' TRANSFER AGENTS AND VALUERS,**35 JEWRY STREET, FENCHURCH STREET, E.C.****Established 1870.****VALUATIONS.**

SPECIAL ATTENTION is paid to Valuations, which are personally conducted by a member of the firm, in any part of the United Kingdom. Our terms, which are moderate, may be had on application.

1.—**YORKSHIRE.**—High-class Retail and Dispensing Business; returning £715 at excellent prices; elegantly fitted shop; well stocked; good house and garden; price £675. (Inspected by us.)

2.—**KENT.**—Light Retail, Dispensing, and Prescribing Business; returns £750, increasing steadily; net profit £300; rent £40; good house; price £600, or offer, or by valuation. (Inspected by us.)

3.—**MANCHESTER.**—Ready-money Retail and Prescribing Business; returns over £1,000 under indifferent management; can do £30 to £40 weekly under principal; price £800. (Inspected by us.)

4.—**YORKSHIRE.**—Light Retail and Prescribing Business; returning £10 to £12 weekly under management; owner when there did £25 weekly; rent £37; same hands 14 years; price £350. (Inspected by us.)

5.—**SUSSEX COAST.**—Light Retail and Dispensing Business; returns over £700 at full prices; handsome double-fronted shop; good house on lease; price £525, or offer. (Inspected by us.)

6.—**SURREY.**—No opposition; a Light Retail, Dispensing, and Prescribing Business; well-fitted shop, heavily stocked; excellent house and garden; returns £600; full prices; price £500. (Inspected by us.)

7.—**SUSSEX.**—Good-class Retail and Dispensing Business; returns £12 weekly under management; best position; large town; excellent house; well fitted and stocked shop; price £500.

8.—**LEICESTERSHIRE.**—Market town; Family, Retail, Dispensing and Prescribing Business; returns £650; good house and garden; large well fitted and stocked shop; price £550, or offer. (Inspected by us.)

9.—**LONDON.**—Good residential suburb; Light Retail, Dispensing, and Prescribing; returns over £700; net profit £300 after all expenses paid; good house and garden; price £500 or offer.

10.—**LONDON, W.**—Main marketing thoroughfare; returns £1,250; chiefly under assistants; net profit £350; good house; low rent; long lease; same hands 12 years; price £750.

NO CHARGE TO PURCHASERS.**35 JEWRY ST., FENCHURCH ST., CITY.**

60

JUDD & MANNERS

(SUCCESSORS TO CROOKER & CO.)

**Chemists' Valuers, Transfer Agents, & Accountants,
76 CANNON STREET, LONDON, E.C.**

VALUATIONS made for Probate or Transfer by a fully qualified member of the firm. Books Audited, Balance Sheets Prepared and Chartered Accountants' Certificate given. Terms (moderate) on application.

BUCKS.—An old-established good-class Retail and Dispensing trade; returns nearly £800; very profitable; price £750, or offer; very handsome pharmacy and good house.

SURREY.—Good-class Family trade; returns £650; rent £65; large and convenient house; price £600; well recommended.

40 MILES FROM LONDON.—A good-class Retail and Dispensing trade; returns £750; price £700; good house, with modern conveniences.

FIRST-CLASS RESIDENTIAL SUBURB OF LONDON.—Good Dispensing and Retail Business, with nice house and Pharmacy; returning between £600 and £700, rapidly increasing; price £500.

NEAR LONDON.—Good middle-class Family trade, with excellent sale of own Proprietaries; returns £980 last year, and increasing; splendid opening for a Dentist; price £800, or offer; moderate rent, long lease, and very convenient residence, fitted with modern appointments.

MIDLANDS.—Pleasant market town; returns £650; price £600 or offer; good house at a moderate rental; nice garden, &c.

BURNLEY.—Branch Business for Sale; returns £400; price, valuation of stock and fixtures.

YORKSHIRE (Good Town).—Branch for Sale; returns £550; rent £70; price, valuation of stock and fixtures only; good bold premises, and plenty of scope for a pushing man.

MIDLANDS.—An old-established good-class Family and Dispensing trade; for many years in present hands; returns £1,000, very profitable; price £1,000 or offer; exceptionally good house and garden.

KENNINGTON, S.E.—Old-established Retail and Prescribing trade; returns £350; moderate rent; price £300; very few Patents sold.

WHITECHAPEL.—Very profitable Retail and Prescribing trade; returns £500; price £350; fine bold corner position and good house.

LONDON, W.—Good-class Retail and Dispensing Trade; giving a net profit of £460 a year; price £1,350; fine commanding corner premises and handsomely-fitted shop with excellent house.

Full particulars of any of the above sent free on application.

VALUATIONS A SPECIALITY.

FERGUSON & OSBORNE

PHARMACEUTICAL CHEMISTS,**CHEMISTS' VALUERS AND TRANSFER AGENTS.****25 YEARS' PRACTICAL EXPERIENCE.****NO CHARGE TO PURCHASERS.**

All VALUATIONS and STOCKTAKINGS are conducted personally by the Principals. Terms on application.

1.—**MANCHESTER.**—General Retail and Dispensing Business, in a thickly populated district; trade principally cash; convenient 9-roomed house, bath, &c.; books well kept; returns about £560; price £400, or valuation.

2.—**LONDON, S.W.**—Family Retail and Dispensing; good house and garden; returns average £9 weekly; price £380.

3.—**NEAR WEYMOUTH.**—Dispensing and Prescribing; nice house, private entrance; returns £450; price £330.

4.—**LONDON SUBURB.**—Returns over £1,200; Light Retail and Dispensing; price, valuation.

5.—**DEVONSHIRE.**—Country Business, with good Prescribing connection; returns about £500; price £225.

6.—**NEAR LONDON.**—Returns £2,500; price £1,500.

**56 CHEAPSIDE, LONDON, E.C.
(Next Door to Bow Church.)**

THOMAS TOMLINSON & SON,

M.P.S.,**Chemists' Transfer Agents and Valuers,****9 NEW CANNON STREET, MANCHESTER.****42 YEARS' EXPERIENCE,** during which period have valued or transferred over 1,300 Businesses.

BUSINESS WANTED.—Thomas Tomlinson & Son, having on their books an extensive list of gentlemen who have entrusted them with commissions to look up a good genuine Business, intending sellers can rely upon being at once with all despatch put into communication with bona-fide buyers without publicity and the annoyance of answering "curiosity" applications. **No charge made unless Sale is effected.**

BUSINESSES FOR DISPOSAL of various classes, and amounts of returns ranging from £200 to £4,000. Particulars given to bona-fide applicants stating outline of requirements.

NO CHARGE TO PURCHASERS.

Telegraphic Address—"TOMTOM."

BUSINESSES FOR DISPOSAL

3s. 6d. for 50 words or less ; 6d. for every 10 words beyond.

FOR Disposal, an old-established Retail Drug and Drysaltery Business ; a good opening ; will be sold cheap. Apply, 22 St. James Street, Nottingham.

SMALL Pharmacy, in growing neighbourhood ; unopposed ; good house, low rent ; satisfactory reasons for disposal ; immediate purchaser £75. Apply, "Rex," c/o Southall Bros. & Barclay, Birmingham.

SPLENDID opening for a Chemist ; now carried on as a Dispensary ; in a thickly-populated working neighbourhood ; no Chemist near ; small premium to an immediate purchaser. N. H., 58 High Street, Homerton.

GOOD-CLASS Retail and Dispensing Business in a pleasant residential suburb of London ; returns nearly £700 ; price £500 ; good house and well stocked Pharmacy. Apply, N. W., c/o Messrs. Meggeson & Co., 14 Miles Lane, E.C.

A RETAIL, Dispensing, and Prescribing Business, in busy main road, N.W. district ; 7 rooms ; rent £70 ; price, to include well-made fittings, fixtures, stock, &c., very moderate. Apply to Mr. Corbett, 70 Camden Road, N.W.

In large town, East of England ; good-class Business ; no cutting ; well stocked and fitted ; net profit nearly £300 ; long lease ; very good and large house ; price £650 ; no agents. Z (3/24), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

An old-established Retail and Dispensing Business in large town in Eastern Counties ; good position for first-class Drug Stores ; large house on lease. For full particulars apply "Silver" (3/27), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NO OPPOSITION ; returns £374 ; easily doubled by qualified man ; good reasons for selling out ; busy town, within easy distance of London ; price £300 ; very profitable ; patents almost nil. 4/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FIRST-CLASS Dispensing and Retail Business, producing a net profit of £800 per annum ; cash price £2,400 ; application for further particulars must be accompanied by a London reference. Address, 3/20, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BRANCH Business for Sale, in a rising riverside suburb ; little opposition ; good opportunity for Dental work ; modern dwelling-house, with stabling and garden ; price, inclusive, £250 ; rent £40. Apply, Frank Mays, c/n Mays & Mackay, Wholesale Druggists, Reading.

ASSISTANTS, with small capital, wishing to commence business, may hear of a specially suitable opportunity to acquire a very profitable Cash Pharmacy in a London main thoroughfare, with full prices and no cutting. Apply, by letter, to "Russell," 13 King's Place, Marylebone, W.

S.E. LONDON.—Branch Retail, Dispensing, and Prescribing Business, in main road, returning £8 weekly under management ; 9-roomed house, with long garden ; price £250, or valuation of stock and fixtures. 3/23, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LIGHT Retail and Prescribing Business, near Manchester ; shop well-fitted, plate-glass front ; good stock, good prices obtained ; returns over £900 (£300 Agency) ; low rental and expenses ; genuine inquiries invited. "Specs" (281/32), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£125.—Old-established Business in densely-populated N.W. district ; rent £42, let off £36 ; takings over £6 weekly, under management ; very profitable, and with attention could be much improved ; satisfactory reasons for disposal. Address, Nicol, 247 Junction Road, Upper Holloway, N.

SOUTH LONDON.—Business in crowded neighbourhood for Disposal ; profit £250 ; good opening for Dentistry ; Post and Telegraph Office attached more than pays rent ; long lease ; plate-glass front ; back entrance ; good reasons for disposal ; price £500. M. A., c/o Messrs. Meggeson & Co., 14 Miles Lane, Upper Thames Street, E.C.

WORCESTER.—For immediate disposal, a very old-established Chemists' and Druggists' business and a Mineral Water Plant, combined. Splendid situation. Spacious double-fronted shop and good dwelling-house ; stock, plant, and fixtures by valuation ; rent £112 ; 14 years' lease. Griffiths & Millington, Valuers, Worcester.

WEST OF ENGLAND.—For immediate Disposal, attractive Pharmacy in fashionable health resort, returning £1,070 ; net profits £320 ; reason for disposing purely personal ; genuine concern, will bear strict investigation ; price £800, or offers ; no agents. 281/36, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BIRMINGHAM (within 10 miles of) ; ready-money Retail and Prescribing Business ; under unqualified management 12 years past ; returns, last year, over £950 ; price £550 ; poisons never sold at this shop ; rare chance for unqualified man ; stock and fixtures worth the money. 270/33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SELECT Retail and Dispensing Business, in a high-class West-end position ; best-made mahogany fittings ; returns about £500 per annum ; very profitable ; with personal attention can be rapidly increased ; will accept £390 from a prompt purchaser, including valuable lease. "Exora," (4/21), Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

£90 cash will purchase a good Branch in the Midlands, returning under bad management over £300 a year, could soon be more than doubled with pushing man ; no drug store in the town ; a few days' trial allowed if desired ; excellent chances for pushing man. Apply, "Fides" (281/28), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SURREY.—20 miles from London ; lovely district ; market town ; nice shop, no other Chemist near ; Branch P.O. and Wine and Spirit Agency attached ; returns average nearly £700 ; price £500 cash ; excellent opportunity for young energetic man with small capital. Apply, in first instance, by letter only (no cards), to "X. Rays," 10 Tankerville Road, Streatham Common, S.W.

RETAIL and Prescribing Business, returning about £900 under management, in busy thoroughfare near Victoria Park ; net profits over £300 ; heavily stocked ; rent only £31 ; long lease ; house contains shop-parlour, kitchen, three rooms over ; private entrance, long garden ; trial allowed ; price £500, part could remain ; references given and required. "Analyst," 33 Langham Road, West Green.

TO LET.

3s. 6d. for 50 words or less ; 6d. for every 10 words beyond.

LLANDUDNO.—House and Shop, admirably and centrally situated, and eminently suitable for the establishment of a successful Chemistry business in this rapidly-increasing popular resort. Apply, T. W. Griffiths, House Agent, Llandudno.

SHOP and House, in centre of town of nearly 20,000 inhabitants ; South of England ; fine opening for a Drug-store ; a large trade can be done ; valuable lease ; low rent ; no premium asked ; some modern fixtures ; stock to be taken at fair valuation. 3/21, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN.

3s. 6d. for 50 words or less ; 6d. for every 10 words beyond.

RETAIL.

PART-TIME, Assistant ; outdoors. Apply, Rees, Chemist, 98 Gray's Inn Road.

ASSISTANT wanted (23-4) for quick Retail ; good Counterman. A., 378 Oldharbour Lane, S.W.

WANTED, smart Chemist ; qualified ; good sale-man ; references ; salary. Hull Drug Co., 34 Whitefriargate, Hull.

QUALIFIED Assistant wanted, about 23 or 24, of good appearance. Apply, personally or by letter, to 48 Regent Street, W.

WANTED, immediately, qualified Assistant, about 24 ; indoors. Apply, with full particulars, to Geo. Brookes, Chemist, Llandudno.

WANTED, Improver or Junior, for a good class business. State age, height, and reference, &c., W. C. Richardson, 7 Central Beach, Blackpool.

QUALIFIED Junior Assistant : send full particulars, age, height, experience, salary required, photograph. Proctor, Son & Clague, Newcastle-on-Tyne.

MESSRS. DUNVILL & PATER, Broadhill, Sheffield, require a Junior Assistant ; Light Dispensing business. Send full particulars, salary required, references, photo if possible.

WOMAN Chemist, qualified, can find good position with a Woman Doctor ; references as to character required. Write "Box 373," Willing's Advertisement Offices, 125 Strand, W.C.

GOOD Junior wanted : used to sharp Store trade preferred ; must have good reference ; indoors. Apply, Francis & Son (Limited), Exchange Stores, Brixton Road, S.W. (close at 4 Wednesdays).

WANTED, a qualified Assistant, at once ; outdoors ; state age and wages required ; a permanency if suitable. Apply, Exors. of Alfred Buck, Dispensing Chemist, 77 Bridge Street, Runcorn.

WANTED, a sharp, businesslike, qualified Assistant as Senior ; working-class district ; half-day weekly. Send full particulars and salary required to Portway & Co., 225 Jamaica Road, S.E.

An experienced and qualified Assistant, about 25, as Dispenser ; indoors ; must have been accustomed to good-class business. Apply to Gould & Co., 456 Oxford Street, W., corner of Orchard Street.

SITUATIONS OPEN CONT'D

RETAIL—continued.

YOUNG man as Assistant Salesman wanted in Dental Depot; one who has been in Chemist's or Druggist's business preferred. State age, wages, and fullest particulars, to H., 162 Great Portland Street, W.

SHUKER & STEPHENS (LIM.), Plympton, require an energetic, qualified Assistant, about end of month. Apply, stating age, salary, if married, where last employed, &c., to C. B. Shuker, Launceston.

AN Assistant, able to Dispense, and accustomed to a country trade; time for study might be arranged. State full particulars, enclosing photo (to be returned), to R. Jones, Chipping Sodbury, Gloucestershire.

WANTED, Junior for brisk Retail; outdoors; hours 8.30 to 9, alternate Sunday evenings, 8 to 9, half-holiday weekly, also one evening at 6 two weeks in three. Photo to J. Chandler, Chemist, Russell Town, Bristol.

WANTED, Assistant (unqualified) for West of England; one accustomed to good-class Retail and Dispensing, quick and accurate. Apply to X. (280/22), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FIRST-CLASS opening in English Chemist's in Japan for qualified Assistant, about 25, with really good London experience; short hours; liberal salary. Full particulars to Dakin Brothers, 87A Leadenhall Street, E.C.

SMART Assistant; about 23; accustomed to high-class, quick trade; must have had good Dispensing experience; qualified preferred. Apply, Rawsthorne & Co., Chemists, 118 Wilmslow Road, Withington, Manchester.

JUNIOR Assistant; indoors; must have been accustomed to good-class Retail and Dispensing. Apply, stating age, height, experience, reference, and salary required, enclose photo (to be returned), J. Johns & Son, Southampton.

WANTED, at end of month, good Junior Assistant; must be good Dispenser; qualified; indoors. Also Assistant for Retail Counter; qualified. Full particulars by letter, Manager, Allen & Hanburys, Ltd., 7 Vere Street, W.

SMART qualified Junior, about 22, for Store trade; must be a good Dispenser; bedroom and sitting-room found, but not food. Full particulars and carte to Field, Breeze & Co. (Limited), Cash Chemists, Oxtou Road, Birkenhead.

JUNIOR or Improver, indoors, in a good-class Country Retail and Dispensing business; easy hours; comfortable home; time for study can be arranged if required. Apply, with full particulars, to J. Hayllar, Hoddesdon, Herts.

QUALIFIED Assistant, willing to accept responsibility of Management when required. Apply, with usual particulars and latest references, to "Qualified," c/o Messrs. Wright, Layman & Umney, 50 Southwark Street, S.E.

WANTED, gentlemanly Assistant (Indoors), accustomed to high-class Dispensing and Retail; none but good Counterman and thoroughly trustworthy need apply. State salary, Wynne Tighe & Son, Chemists, 3 and 4 High Street, Exeter.

JUNIOR (shortly), aged about 20; indoors; one used to quick Country trade and small Wholesale. Apply, with full particulars as to age, height, reference, and photo (to be returned), and stating when disengaged, to Fred J. Oliver, Maidstone.

WANTED, at once, an Assistant; one able to Extract Teeth and an abstinence preferred; must have good references; an apprentice also kept; no Sunday duty. Apply, by letter or personally, to Lakeman, Chemist and Dentist, Leytonstone.

SMART, trustworthy Junior, of good appearance and address, capable of taking occasional charge; permanency to suitable man. Apply personally, or, if by letter, enclose carte, with full particulars, to C. Brown, Chemist, Beulah Road, Walthamstow.

WANTED, qualified Assistant in a Dispensing and Light Retail business; indoors; good counterman and obliging, and to take charge during absence of principal. Address, with full particulars, J. F. B., Messrs. Evans, Sons & Co., Liverpool.

ABOUT March 15th, energetic Junior, Mixed Country trade; accustomed to solicit amongst shopkeepers, &c., put up stock, and assist generally; hours 8 to 8; no heavy trade or Sunday duty; meals in, sleep out. Apply with photo, Smith, Chemist, Titchfield, Fareham.

EASTBOURNE.—A qualified indoor Assistant, about 26, to Manage Branch; accustomed to good-class Dispensing and Retail business; must be well recommended. Apply, with photo, if convenient, stating usual particulars, and salary required, to Walter Price, 30 & 69 Grove Road, Eastbourne.

JUNIOR, in a Light Country business, wanted; must be smart and trustworthy; one just out of his apprenticeship; if well recommended would be treated with. Please give particulars of age, height, experience, salary required (indoors), with photo and references, to Smith, Chemist, Coleford, Glos.

WANTED, at once, an Assistant, accustomed to quick Dispensing, for a Doctor's Dispensary; qualification not essential; hours 9 A.M. to 1 P.M., and 6 to 9 P.M.; salary £60 per annum, with early increase to a smart man. Apply to S. A. Walton, 190 Broadhurst Gardens, West Hampstead, N.W.

ASSISTANT, about 22 years; Light Retail; one only kept; good references and well up in Retail essential. State particulars of experience, age, height, salary (indoors), and when disengaged; if convenient enclose carte (to be returned), or personal interview. A. Higgs, Chemist, Kingston, S.W.

SOUTH AFRICA.—Wanted, an Assistant, Minor qualification; single man; age not over 30; good appearance and address; steady and sober; 3 years' engagement; second-class passage paid; good salary given; excellent climate. Apply by letter, giving full particulars, to Sharland & Co., 43 London Wall, E.C.

JUNIOR or Improver, at once, or March 1, for Store Chemist; must be industrious, obliging, and trustworthy, accustomed to putting up stock, and general routine. Applicants please state age, height, and experience, also salary required (indoors); references and photo to be enclosed to Stuart, 103 Lower Clapton Road, London, N.E.

WANTED immediately, smart Assistant; about 25; indoors; accustomed to high-class Dispensing and Cash trade; knowledge of Photography. Apply, with full particulars of experience, qualification, salary, age, height, and photo (returnable), H. S. Pearman, Pharmaceutical Chemist, 48 High Street, Tunbridge Wells.

WANTED, active qualified Manager (indoors), age about 28 to 30, to take charge of a good Mixed country business; comfortable home and permanency; no Sunday duty. Apply, with full particulars of experience, salary expected, &c., and photo (to be returned), "Libertad," c/o Samuel T. Loader & Co., 15 The Temple, Liverpool.

WANTED, early in February, experienced Assistant, aged from 22 to 25, steady and reliable, for a brisk business; salary £40 to commence; indoors; must be pushing and energetic; comfortable home; one evening a week out; very little Sunday duty; from a good country house not objected to. Barnard & Son, 309 Hackney Road, London, N.E.

WANTED, a young man to take entire charge of East-end Drug Stores; must be accustomed to the Retail; £10 cash security required; good references; abstainer preferred; entire house, salary, and commission. Send photo if possible, but not necessary (will be returned), with particulars, if married, &c., "Manager" (4/11), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BOARD and Residence.—Advertiser (in the trade) offers above to Students, outdoor Assistants, &c., at most reasonable terms; situated in nice locality; bathroom supplied with hot and cold water; no children; 1d. tram to Will's, Muter's and Watson Will's; every home comfort; a call solicited. Apply, 5 St. Martin's Road, Stockwell, S.W.

WHOLESALE.

CHEMIST wanted, in London or Manchester, to bottle Proprietary article. Apply, 269/4, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, young man of good address as Traveller, to introduce a Novelty. Address, R. (4/26), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WHOLESALE Drug Trade.—Wanted, a Youth, about 18, with some experience in Pill Making and Coating. Apply, General Apothecaries' Company, 49 Berners Street, W.

TRAVELLERS calling on Wholesale and Retail Chemists and Chemical Manufacturers, &c., can hear of good commission. Address, Bennett, Sons & Shears (Limited), 167 Kingsland Road, N.E.

WANTED, immediately, an Assistant, aged 20 to 25, for Liquid Counter at Wholesale Druggists. Apply, by letter, stating full particulars, to E. C., c/o Messrs. Edwards & Sons, 157 Queen Victoria Street, E.C.

TRAVELLERS wanted for town and provinces by Perfumery house; must have good connections among Chemists and Perfumers; salary and commission. Apply, 3/16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR Clerk required, immediately, for Wholesale Druggist's; must be a nice writer and have served apprenticeship to trade. Apply by letter, giving full particulars, to G. S., c/o Messrs. Edwards & Sons, 157 Queen Victoria Street, E.C.

REQUIRED, a sharp and intelligent Man; must have a thorough knowledge of Druggist's Sundries. Apply, stating age, qualifications, and salary required, to "Beta" (281/20), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, immediately, First Hand for Pill department; must be thoroughly competent; one with a knowledge of Tablet making preferred. State salary expected and experience, 3/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

20 PER CENT. commission on a good saleable article (registered) is offered to Town or Country Travellers calling on high-class Chemists, Grocers, &c. Apply, in first instance, by letter only (in confidence), with full particulars, "Director," 7 Canobury Lane, London, N.

MESSRS. GOODALL, BACKHOUSE, & CO., Leeds, have an opening for a smart man, as Traveller, to represent them in the Midlands; must be a good Salesman and possess a sound knowledge of the Drug and allied trades. Apply, stating references and salary required, to White Horse Street, Leeds.

TRAVELLER.—A London firm of Oil Merchants, Drysalts, &c., with large connection in Thames Valley, near Midlands and West, is open to appoint a representative fully experienced in the trade; salary and expenses. Reply, with particulars, to T. R. V. 42, Deacon's Advertising Offices, Leadenhall Street, E.C.

SITUATIONS WANTED.*1s. for 12 words or less; 6d. for every 6 words beyond.***RETAIL.****JUNIOR**; 21; time for study; disengaged. H. L. Smith, Manor House, Kettering.**DISPENSER**; 23; 6 years' experience. Strutt, c/o Horlock, London Hill, Harrow.**SENIOR** or Manager; 29; qualified; tall. E. Abraham, Caistor, Lincolnshire.**QUALIFIED**; 22; tall; Liverpool or Manchester. Gray, 87 Bold Street, Liverpool.**ASSISTANT**; qualified; 23½; good experience. Alpha, 70 Oxtou Road, Birkenhead.**DISPENSER** to Doctor, or wholesale; 25; state salary. 52 Eight Avenue, Newcastle.**QUALIFIED**; London; outdoors; 27; disengaged. 21 Beauchamp Road, Lavender Hill.**JUNIOR**; good experience; 20½; in London or suburbs. McGhie, 49 High Street, Hampstead.**JUNIOR**; 21; 5 ft. 3 in.; indoors preferred. Howarth, c/o Fargher, Chemist, Spitalfields, Cardiff.**JUNIOR** Assistant or Dispenser; part time; 21; London preferred. Askham, Flockton, Wakefield.**AS** Dispenser to Chemist or Surgeon; London; aged 21. James, 16 Gallowtree Gate, Leicester.**DISPENSER**; Stores experience; outdoors; highest references; 27. A., 6 Parson's Mead, Croydon.**JUNIOR**; 22; height 6 ft.; first class experience; Dispensing. R. S. Lacey, High Street, Abingdon.**MANAGER** or Locum; Extractor, Prescriber. Bailey, 17 Stafford Road, Wynne Road, Brixton, S.W.**ASSISTANT**; unqualified; aged 24; disengaged 1st March. Hickinbotham, Medical Hall, Sidmouth.**AS** Dispenser or Assistant; 35. 1/19, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LOCUM** or permanent; disengaged; aged 29; good Extractor, 17 Strickland Street, St. John's, S.E.**JUNIOR**; 22; experienced, Retail or Wholesale; London preferred. H. D., 346 Essex Road, Islington, N.**MANAGER** or outdoor Assistant; qualified; 39; London experience. Perks, 1 Portwood Street, Liverpool.**QUALIFIED**; long experienced; town and country; Extractor. "Manager," 13 Kate Street, Leicester.**ASSISTANT**; 29; thorough knowledge of the business; disengaged. "Omieron," 4 Swan Hill, Sbrewsbury.**LOCUM-TENENS** or Permanency; qualified; aged 43. C. M., 1 Stratford Villas, Camden Square, N.W.**MAJOR** Student desires one or more evening engagements. Jones, 48 Crampton Street, Newington Butts.**QUALIFIED**; tall; 22; good Stores preferred; highest references. Wainwright, Beacroft Road, Castleford.**JUNIOR**; 22; 6 years' experience; good references; abstainer. Wright, c/o Featherstone, Chemist, Tunstall.**QUALIFIED** Assistant; aged 23; first-class Dispensing experience. "Armorica," Tennyson Avenue, Bridlington.**QUALIFIED** Assistant; tall; 24; high-class experience; good references. Miller, c/o Bell, Chemist, Ambleside.**QUALIFIED**; 23; good Dispensing experience; London preferred; disengaged. W. F. Young, Parade, Liskeard.**EXPERIENCED** Assistant; 33; Country preferred; abstainer; height 6 ft. "Onrare," Arlosfa, Menai Bridge.**ASSISTANT** (23), experienced, 5 ft. 9 in., desires situation as Counter-man. "Sulphonal," 33 Derby Road, Croydon.**JUNIOR**; 3½ years, London; indoors; highest references; abstainer. "Erythroxyton," 98 Petherbert Road, Highbury.**BIRMINGHAM** or District.—Junior; 7½ years' experience; references. N., Holly House, Prospect Hill, Redditch.**ASSISTANT**, or Locum Tenens; disengaged; good references. "Chymist," 41 Prince's Square, Kennington, S.E.**EVENINGS**, or part time; disengaged 6 p.m.; good references; experience. "Chemist," 82 (rowndale Road, N.W.**ASSISTANT**; quick, pushing Counterman; highest references. James, 11 South Street, Manchester Square, W.**JUNIOR**; 21; 6 years' experience; Dispenser; time to attend evening classes; Birmingham preferred. Bathurst, Tewkesbury.**ASSISTANT**; 24; qualified; West-end experience. 2 16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**MANAGER**; capable, energetic, experienced; 33; qualified. "Tall" (1/20), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**ASSISTANT**; 23; tall; 5 years' good London experience, Dispensing and Retail; disengaged. Pearson, 59 St. Stephen's Road, Upton Park.**JUNIOR**; 19; passed Preliminary; 4½ years' experience; good references; London or South preferred. Cullingford, c/o Wellington, Oakham.**DISPENSER** and Bookkeeper (35) to Surgeon's or busy Retail; thoroughly experienced in all branches. M., 139 Upland Road, East Dn'wich.**MANAGER** or Assistant; 28; excellent references and experience; Dispenser and smart Counterman; branch preferred. Johnston, Plympton.**ASSISTANT**; unqualified; 24; 7 years' experience; Wholesale or Retail. 2/7, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**GERMAN** Apotheker wishes situation in England; London preferred; knows French; best references. A. Kemp, Bd. James Fazy, 7, Geneva, Switzerland.**MANAGER** of Branch, or Assistant; aged 36; qualified; can Extract Teeth and Prescribe; good references. Burn, 6 Vicar Street, Kidderminster.**DISPENSER** or Assistant; young gentleman; 23; good references; London or suburbs preferred. "Student," c/o Mr. Barlow, 25 Zigzag Road, Liskeard.**ASSISTANT**; competent, reliable; aged 29; height 5 ft. 10 in.; 14 years' first-class experience; good references. Perren, Frogmore House, Box, Wilts.**BROAD** or Continent; 25; 10 years' experience, 4 years' India; Mixed trade; would travel; good references. "Masonic," 113 Great Portland Street, W.**QUALIFIED**; best Dispensing experience and references; locum or permanency; outdoors; disengaged. "Dispenser," c/o Garland, Chemist, Blackburn.**DOCTOR** or Chemist; qualified, experienced Dispenser; will give her services for comfortable home; Bookkeeping; references. Cadarga, Knowle, Birmingham.**DISPENSER**; accustomed to good first-class Dispensing; West-end house preferred. 279/19, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**EVENINGS** (Saturday and Sunday); Dispensing or Retail to Chemist or Surgeon; aged 25. 2/14, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**A TALL** well-educated youth (19), son of Pharmaceutical Chemist, requires situation as Improver in town or home county. Apply, H. C. Lasham, Romford.**AS** Improver; quick cash business preferred; aged 18; passed Preliminary; tall; 4 years' experience; knowledge of photography. Farr, Yaxley, Peterboro'.**JUNIOR** or Improver; 19; passed Prelim.; just out of apprenticeship; good experience in Dispensing and high-class Retail; highest references. West, 2 Uxbridge Square, Carnarvon.

SITUATIONS WANTED CONT'D**RETAIL—continued.**

JUNIOR; 4½ years' brisk Store trade. W. J., 27 Delverton Road, Newington, S.E.

ASSISTANT; 23; London; time for evening classes. Edwards, 3 Regent Road, Lowestoft.

JUNIOR; 20; disengaged; good references; Photography; London. "Statin," 360 Gray's Inn Road, W.C.

SENIOR or Manager; qualified; married. "Dentist," c/o Douglas, 9 Arundel Street, Strand, London, W.C.

LOCUM, or permanency; qualified; Dispenser, Prescriber; town experience. "Eloh," Medical Hall, Chelmsford.

LOCUM TENENS (25); qualified; good Dispenser; West End experience. "Chemist," 118 Kingsland Road, N.E.

RELIABLE Assistant; 24; good experience and references; disengaged. Thomas, 13 Elmstone Road, Farnham, S.W.

LOCUM, Manager or Dispenser, for Surgeon. "Tan," (281/27), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Manager; married; Major qualification; good references and experience. Apply, J. C., 4 Dartmouth Terrace, Forest Hill, S.E.

ASSISTANT or Branch Manager; outdoors; experienced Prescriber, Counterman, Extractor. "Chemicus," 215 Leytonstone Road, E.

JUNIOR; 21; 5 ft. 8 in.; Dispensing and Retail; 6 years' good experience; good references. G. R., 8 Albion Parade, Clissold Park, N.

EVENING engagement or to take occasional charge; qualified. J. (3/32), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Dispenser to Medical; disengaged; aged 22; Hall qualification; experience; excellent references. S., 39 Wilson Road, Oamberwell, S.E.

ASSISTANT; 24; Part-time preferred, to attend lectures; good Dispenser, Photography; disengaged March 3rd. Taylor, 6 Ewell Road Villas, Surbiton.

EVENING engagement or half day; Chemist or Surgeon; long experience, reliable, energetic. 4/18, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Manager or Senior; 23; qualified; 11 years' experience; highest references. "Compass" (4/20), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER, Assistant, or Locum; qualified; disengaged; London or Suburbs preferred; exceptional references; age 30. "Ajax," 11 Orient Buildings, Hercules Road, Lambeth.

NO SALARY.—Indoor; competent Dispenser; at. 21; Chemist or Surgeon; Camb. Local, First Aid, Vaccinate, Cyclist; time study; well recommended. D., Y. M. O. A., Tunbridge Wells.

THOROUGHLY reliable Assistant, outdoor, married, 28, easy hours, or manage small Branch, wishes to qualify; London or Provincial; near school. E., 164 Stafford Street, Wolverhampton.

JUNIOR; trustworthy; London or suburbs; respectable and abstainer; good Counterman and fair Dispenser. For references and terms (moderate), address, "Disengaged" (3/13), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

YOUNG Armenian desires engagement immediately as Assistant; Wholesale or Retail; present employer thoroughly recommends him as steady, obliging, and gentlemanly; comfortable home more important than salary. Edwin Thorp, Pharmaceutical Chemist, Chichester.

UNQUALIFIED Assistant desires engagement; Prescriber, good Extractor, Dentistry (Mechanical and Surgical), Counter work; indoors preferred; 10 years' experience; references and photo sent. "Apol" (267/24), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER, Inspector, or charge of Dispensing Department, of high-class good going store; either live on or off premises; own furniture; qualified; aged 33; high-class Provincial and London stores experience; satisfactory references; disengaged February 25. E. S. (4/4), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WHOLESALE.

WHOLESALE, Wet, or Chemical Counters; good references. "Tinctures," 18 Montrave Road, Penge.

COUNTER or Laboratory; aged 28; qualified; highest references. Thomson, 79 Upland Road, East Dulwich.

AS Representative; 26; good appearance and address; 10 years' Retail experience. W., 17 Ramsden Terrace, Leeds.

GENTLEMAN, carrying Perfumes, open for one or two good Commissions. "Komo," 8 Moorgate Street, Nottingham.

TRAVELLER (experienced); Drugs or Sundries; good appearance; guarantee; highest references. "Traveller," 7 Commercial Street, Shipley.

SITUATION wanted; good laboratory and tincture-room experience; excellent references. George W. Smithson, 3 Welclose Square, Whitby.

AS Warehouseman or Manager of Aërated-waters department; 10 years' experience; good references; aged 25. A. Mattingley, c/o Wood, Obemist, Windsor.

SURGICAL Instruments, Sundries, or other suitable department; aged 24; permanency; sound references. "Spec," 71 Alston Street, Ladywood, Birmingham.

POSITION in Warehouse or Office; 26; 11 years' experience; good reference. H. A. (1/39), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PILL-HAND desires a change; 6 years' experience in the Coating branch. "Pillula" (1/38), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ADVERTISER, experienced in all branches of Aërated Water trade, requires engagement. Apply, 2/8, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Traveller, by experienced gentleman, any branch; small salary and commission. "Chemist" (1/15), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENTLEMAN, resident in Sheffield, calling on Chemists in neighbourhood, will be pleased to represent some Wholesale house. "Voyageur," c/o El-Teb Ivory Co., Sheffield.

TRAVELLER for Drug or Sundry house; 15 years' Retail experience; connection Town and South West. "Road" (1/11), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IN Wholesale or Analysis—Engagement wanted by Major man; 23; moderate salary; London reference. "Dignus" (2/9), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

YOUNG Man, late Buyer to Wholesale house, seeks employment; thoroughly conversant with leading markets; highest references; full particulars. S. L. A. (279/20), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Traveller; disengaged; 12 years' experience; commission and salary; good connection with chemists and medical men; would push good specialties; South Wales and Midlands. Apply, Walter Riville, 2 Brook Street, Cardiff.

TRAVELLER; qualified Chemist; many years in Retail; thoroughly experienced and energetic; to represent Drug, Sundry, or Perfumery house; references and security. "Harold" (1/14), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SMART Clerk requires re-engagement where 10 years' experience in London Druggists' and valuable information would be useful; thorough bookkeeper; or as Traveller; salary a detail. 4/14, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER, of many years' experience, at present representing established house amongst Doctors and Chemists (town and suburbs), open for re-engagement end of February. Reply, W. (281/19), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY.—Gentleman, 23, good appearance and address, wishes to represent a Wholesale House; 11 years' varied London experience in all branches of the Drug trade; highest references. Apply, "Chemist" (4/6), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GENTLEMAN, well versed in Pharmacy, Pharmacology, and the technicalities of the Drug trade, desires appointment in a Wholesale Drug House as Manager of Advertisement department and Pamphleteer; some years' experience. A. (43/1), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS

Special charges are made for Advertisements under this heading, which can be obtained on application.

DAISY Window Attraction's are so successful that Mr. Agar, chemist, South Bank, wrote to say that had he not occasionally taken it out, the window would most certainly have been pressed in by the crowd. If you want your window smashing thus, write for particulars. "Daisy," Leeds.

ASSISTANTS rapidly prepared personally and through the post for all examinations; most successful system; numerous high passes at Major, Minor, and Apothecaries' Hall; competent tutors in all departments. Apply, Mr. G. E. Skerry, M.A., the City School of Chemistry and Pharmacy, 27 Chancery Lane, London.

CHEMIST having Royal Letters for a very valuable Patent interesting to Chemists, Wholesale Chemists, and Aerated-water Manufacturers, will be glad to have communication in respect to developing the same, either as a Syndicate or otherwise; fortune to be made properly worked. Particulars on application to W. P. (2805), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHEMIST'S Shop-fixture, 12 ft. long, containing 60 drawers, bevelled-edge glass labels, glass knobs (lockers below), pilasters, shelves (cornice above); mahogany or walnut, £13; counters, mahogany top, 7s. 6d. foot run; bent plate counter-cases, 6 ft. long, 95s.; cheapest house for window-fittings, plate-glass shelves, mirrors, sponge-cases, counter-cases. Treble & Co., Complete Shop Fitters, Rectory Works, Jenner Road, Stoke Newington, London, N.

CHEMISTS' Shop-fixture.—Ranges mahogany drawers, with bevelled-edge glass labels and out-glass knobs, shelving above, lockers below; mahogany dispensing-screens; counters with glass-case fronts; wall-cases; bent-front and flat-top counter-cases; counter-desks; tooth-brush cases; complete shop-rounds, &c.; every requisite for chemists, new and second-hand; extensive stock to select from, at extremely low prices; practical men sent to all parts; estimates free. Matthews, Chemists' Fitter, 14 Manchester Street, Liverpool.

TO CHEMISTS AND DRUGGISTS.—The Koko Mariopas Company (Limited), 11 Gray's Inn Road, London, will supply a Flag and Pole (free) to be fixed over the shop, with the words in white letters, "Koko for the Hair," and with the name, &c., of Chemist underneath; this is found to be a splendid advertisement for Chemists and Druggists; a beautiful picture of Miss Ellen Terry (framed, 22 in. by 16 in.) can be had on application either to Messrs. Butler & Crispe, 82 Clerkenwell Road, London, or to the Company at above address; write for particulars.

Summary of Principal Contents of to-day's issue of "The Chemist and Druggist."

SOME alterations in store prices are notified on p. 222.

AN Edinburgh chemist's assistant has been divorced (p. 225).

THE American makers of indiarubber-plasters have combined (p. 229).

QUININE has been down to 7½d. per oz. this week; cocaine is also lower (p. 247).

THE Leather-sellers' Company offer 150% a year in scholarships for chemical research (p. 223).

THE names of those who passed the British Preliminary examination last month are given on p. 229.

TWO chemical methods for producing photographs in natural colours have been announced (p. 237).

ONE chemist's assistant has poisoned himself with prussic acid, and another was in danger of doing so (p. 222).

A FINE sample of ginger-beer, containing 10.8 per cent. of proof spirit, was the subject of prosecution at Sheffield (p. 223).

THE Pharmaceutical Council had little business to do on Wednesday, except to determine by ballot who should retire in May (p. 228).

Is there a more rapid form of ether vibration than x-rays—a form that will convey thought? Mr. Crookes thinks there may be (p. 238).

MR. HYSLOP read an entertaining paper to the Chemists' Assistants' Association last week on the present position of pharmacy (p. 230).

BELGIAN pharmacists have sent out invitations for an International Pharmaceutical Congress to be held in Brussels next August (p. 236).

THE Pharmaceutical Society of Great Britain loses on men in business, but gains with employes. So the Secretary's report indicates (pp. 228 and 239).

CHEMISTS' Shop-fittings.—14-ft. handsome wall-fitting, containing 70 drug-drawers, with bevelled labels and cut-crystal knobs, bottle-lockers, shelving, plate-glass mirror poison-cupboard, pilasters, and cornice; massive 10-ft. wall-ense to match, with pilasters, movable shelving, and glass doors top and bottom; 14-ft. mahogany and plate-glass serving-counter, fitted with label-drawers, till, &c.; bevelled mirror-centre dispensing-screen, plate-glass dispensing-counter and sponge-case combined; mahogany counter-desk and perfume-case; bent plate-glass and mahogany counter-case; tooth-brush case, mahogany and plate glass; 2 swan-neck carboys; French scales and weights, and shop steps; all in excellent condition, perfectly clean and modern, and most attractive; price 80 guineas the lot. Philip Josephs, 54 Old Street, City Road, London, E.C.

CHEAP GOOD PERFUMES.

QUINTESSENCES (Rouse's) enable the Retail Chemist to make his own Perfumes without trouble at a cost of 4d. per oz.; a booklet, giving full particulars, together with samples of labels, sent free on receipt of post-card. Rouse Bros., Man'g Perfumers, 61 Charlotte Street, Tottenham Court Road, London, W.

J. GINSBERG,

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STUDENTS! Write to-day for a "Guide to Examination," gratis and post free, giving the best advice how to prepare. Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Notes on Dispensing, 1s., post free. Mr. J. Tully (Hills Prize-man), Chemist, Hastings.

TRADE NOTICE.

LEGGETT "COMPENDIUM," 3rd edition, revised and enlarged; contains the names and addresses of the principal traders to date; drug-stores and herbalists, limited companies, co-operative societies, Chemists trading as stores, London and provincial proprietors, London and provincial Wholesale Druggists; a handy patent-medicine vendor's guide and directory at a small cost; ready February 9th; 2s. 3d., post free; order early. W. J. Leggett, 95 Boaler Street, Liverpool.

STIRLING'S "MINOR" AIDS.

Tabulated Materia Medica, B.P., 1885-90, and Non-Official, 2nd Edition. Much time and laborious study saved by the use of these Tables. 1s. 6d. Notes on Dispensing, Pocket Edition (4th). Interleaved for MS. notes. 1s. 6d. Doses, Sp. Grs., and Percentages of B.P., 1885-90. New and Improved Edition. Scheduled Poisons (Parts 1 and 2) in distinctive type. 6d. Equations, &c., of the B.P. Chemicals. An aid to the Chemistry of the British Pharmacopoeia, and a Guide to Equation Writing. 1s. Synopsis of Strengths, B.P. 1885-90. By means of this little book a month's work may be easily done in a few spare half-hours. 1s. Pharmaceutical Latin and Prescription Reading. With Key. 1s. 6d. Post free per return for P.O. or stamps, from the Publisher.

JOHN GOWER, 4 Lancing Road, Ealing, LONDON.

SOME progress is being made with the Jersey Pharmacy Act (p. 223).

ANOTHER list of trade subscribers to the Indian Famine Fund is printed on p. 224.

THE Register of chemists and druggists increased by eighty-eight only during 1896 (p. 228).

THE condition of the British drug-trade, as reflected by examination statistics, is not encouraging (p. 238).

AN important observation regarding chilblains by a medical authority is printed on p. 238 as a supplement to last week's article.

PROFESSOR HERKOMER has produced a portrait of Professor Attfield. Proofs of it will be presented to those who subscribe 10s. to the Attfield testimonial (p. 238).

AN official document relating to foreign competition has been published by the Board of Trade, and is noted on p. 245; we give an interview with Mr. Tyrer, on the "Made in Germany" question on p. 244; and on p. 252 appears a letter from the maker of the 4711 eau de Cologne, arguing that German prosperity means an improved demand for British goods.

THE High Court has refused to review the decision of Magistrates in the case of a chemist who had sold milk of sulphur for precipitated sulphur. He stated that he explained the difference to the purchaser, and the Magistrates dismissed the summons. "What is the use of having a forty years' good character if you can't be acquitted sometimes?" asked one of the Judges.

SALICYLIC ACID in quinine wine was not regarded as an adulteration by the Stratford-on-Avon magistrates. Arsenical soap, with no arsenic, which was not a drug at Wimbledon becomes one at Epsom. Spirit of nitrous ether, half strength, is passed at Barry Dock, but at St. Asaph a sample of spirit of nitre containing only one-fifth of the B.P. minimum of ethyl nitrite secures a penalty (p. 241).

Exchange Column—Bargains

TERMS.

DEPOSIT.—The purchaser of anything advertised in the Exchange Column may remit the amount to us, and we only pay the money deposited on advice from the remitter. We charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

Advertisements in this section must be paid for in advance, and are charged at the rate of ½d. per word, provided the advertiser attaches his name and address. If he pays 1d. per word his name and address is registered and a figure attached to his advertisement, in both cases the minimum charge being 6d.; letters are then forwarded by us to their proper destination.

APPARATUS.

Thirty excellent x-ray lantern-slides, 6d. each; list stamp. PICKERING, Chemist, Leicester.

Copper still, nearly new, worm, complete, 30s.; one-third of cost; bargain. 297/17, Office of the C. & D.

Water-bed, reeded, 72 by 36 inches, in perfect condition, but soiled; £3, or offers. HOWDEN, Chemist, Tufnell Park, N.

Bargain.—Winshurst machine, 17-inch ebonite plates, list price £5 10s.; sell for £3 5s. cash. BAINBRIDGE & FINLAYSON, Stockton.

Soda-water machine (Barnett & Foster), perfect condition, and at work; must be sold for space; what offers? FITTON, Chemist, Hertford.

Four handy portable sheep-dipping machines; equal to new; cost over £5 each; will take £10 cash for lot; sketch sent. 278/27, Office of the C. & D.

Magic Lanterns, second-hand; Wrench's telescopic triple and biunial; Ladd's oxyhydrogen microscope; grand biunial patent pamphengos oil-lantern, gives 14-ft. picture; slides and effects; bargains. HUGHES, Brewster House, 82 Mortimer Road, Kingsland, N.

BOOKS AND PERIODICALS.

What offers? "Materia Medica," 1874, and 4 other works. DALE, Daisy Bank, Lockhampton.

"C. & D." from July 30, 1893, to date? what offers? O., 22 Oranwich Road, Stamford Hill, N.

Preliminary books, cheap, about third published price. JACKSON, 434 Victoria Street, Grimsby.

What offers? 15 years' ('82 to '96) *Chemist and Druggist*, clean and complete. CROSS, Wingate, R.S.O.

"Medical Directory," 1896, perfect condition, 6s. 6d., carriage paid. STICKLAND & Co., South Kensington.

"Chemist and Druggist," 1893, 1894, 1897, 1898, 1892, for sale. HENDERSON, Chemist, Rosemont Viaduct, Aberdeen.

"Lancet," 1880 to 1883, complete 20s.; *Year-book of Pharmacy*, 1874 to 1884, as new, 33s. WATT, Lynn Street, West Hartlepool.

Wills' "Elements of Pharmacy," 3s.; materia medica cabinet, 4s., and extra materia medica cabinet, 4s. 6d.; "Volumetric Analysis," 1s. 6d.; all latest editions. DUNDAS SIMPSON, Chemist, Broxburn, Scotland.

Proctor's and Will's "Pharmacy," Ganot's "Natural Philosophy," Edmond's, Bentley's, Cooke's, Thorne's, and Prantl's "Botany," "Art of Dispensing," Martindale, Squire, B.P., Fisher and Attfield's (4th) "Chemistry"; what offers? Frank's microscope, cost £6, take £3 17s. 6d. W. SMITH, 43 Cavendish Road, West Didsbury, Manchester.

DRUGS AND CHEMICALS.

Bismuth; about 28 lbs. each carbonate, subnitrate, Howards'; what offers? MANAGER, 16 Cambridge Street, W.

Ten gross pil. aloin. et belladon. (Sir A. Clark), oval, gelatine-coated, new and fresh, 1s. 6d. per gross, or offers. GAULD, 6 Aughton Street, Ormskirk.

FORMULÆ.

Book of 130 well-trying recipes for chemists; general, remedial, veterinary, toilet; post free, 1s. 6d. TULLY, Chemist, Hastings.

PROPRIETARY ARTICLES.

Great bargain in Laurence's spectacles—namely, 16 10s. 6d. biconvex pebbles, 22 5s. 6d. periscopic crystal, 12 3s. 6d. short sight spectacles; all less 60 per cent. discount. Apply, GRATTON, Chemist, Blaenau Ffestiniog.

SHOP FITTINGS.

Two 10-gall. show-carboys, half-price. COCKING, Sittingbourne.

For sale, 2 specie-jars, 33-inch and 25-inch; good condition. SMITH, Chemist, Gosport.

200 3-gall. jars in one lot, 4d. each, narrow mouth; have contained acid. sulph. SMITH, Chemist, Gosport.

Two 4-gall. carboys, cut stoppers, and stands; 2 specie-jars (22 inches), with gilt lids and beautifully labelled "Sponges" and "Trusses"; 4-grain pill-machine, to make 36, all quite new; what offers for all or part? LEE, Chemist, Neston.

Manufacturer's surplus, bargains, perfect.—Two indiarubber mats, 60 in. by 20 in. and 48 in. by 20 in., complete 9 ft., suitable for counter-front, half value; also 36 in. by 24 in., 16s. 6d., and 30 in. by 24 in., 15s. "CHEMIST," 4 Commercial Road, Peckham, S.E.

MISCELLANEOUS.

Stock of spectacles, optometer, book on eyesight, cost nearly £8, suitable for commencing optical trade; £4 10s., carriage paid. WRIGHT, Chemist, Hebden Bridge.

Three gas-chandeliers, 5-light, 2 3-light, quite sound, very neat; 1½ doz. imperial hand fire grenade extinguishers; what offers? BENNETT, Chemist, Widnes.

Offered.—Drugs, chemicals, and general surplus stock; gas engine and soda-water machine; syphons, seltzer, and sodas, unlettered. 2/21, Office of the C. & D.

Spectacles and some eyeglasses, 181 pairs, assorted sights and prices, some unnumbered, (a few blue,) nearly all in good condition, sight-tester; cost net £15, take £7 10s.; cash in 7 days. APPLEBY, Chemist, Ilkley.

WANTED.

Check-till for cash. H., 14 Queen's Terrace, St. John's Wood.

One and 2 drachm pessary-moulds for 6, conical. HORNIBLOW, Chemist, Worcester.

Oval 45-grain pessary-mould; metric weights. 14 St. James Square, Wolverhampton.

Green's "Botany," vol. 1, recent edition; state price. COVERDALE, Chemist, Rotherham.

Ganot's "Physics"; recent edition. Lowest price to PUNCH, Chemist, New Kent Road, S.E.

Vulcaniser, secondhand, for 2 flasks; also gauge (Gartrell's); must be in perfect condition. State particulars and price to ABEL, Chemist, Forfar.

Microscope, micro-stereoscope, specific-gravity balance, glass percolator, in good order and cheap for cash. Send full particulars, price, and where can be seen, to ANGLEHOLME, East Hill, London, S.W.

ADDRESSES WANTED.

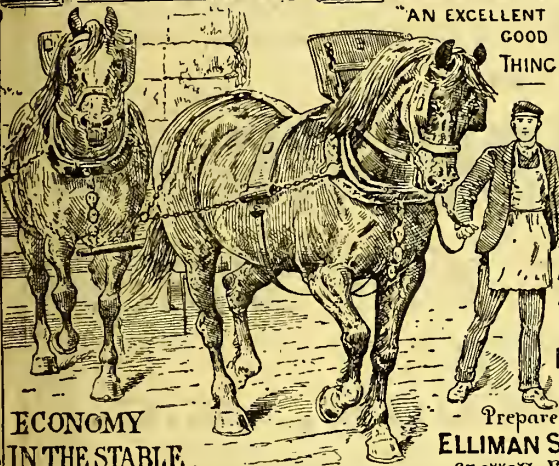
Present address of makers of Cumberland's maté tea. P., 76 New Bond Street.

Name of maker of sulphur eggs or balls for rheumatism. FRASER, 84 Coniston Road, Edinburgh.

J. S., Blandfield Chemical Works, Canonmills, Edinburgh, begs to state that he has purchased the back numbers of the C. & D. advertised for on January 30. Please note.

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ECONOMY
IN THE STABLE.

BOTTLES
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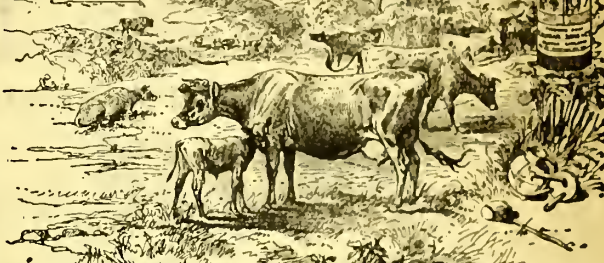
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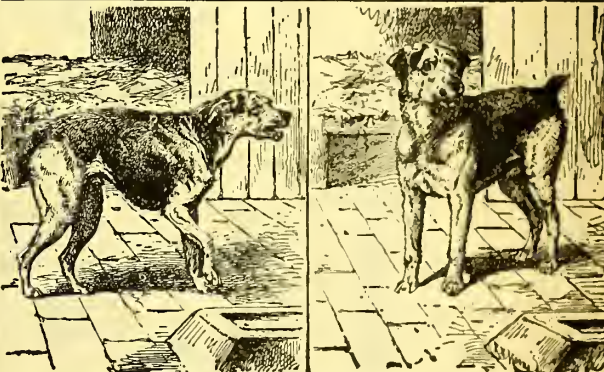
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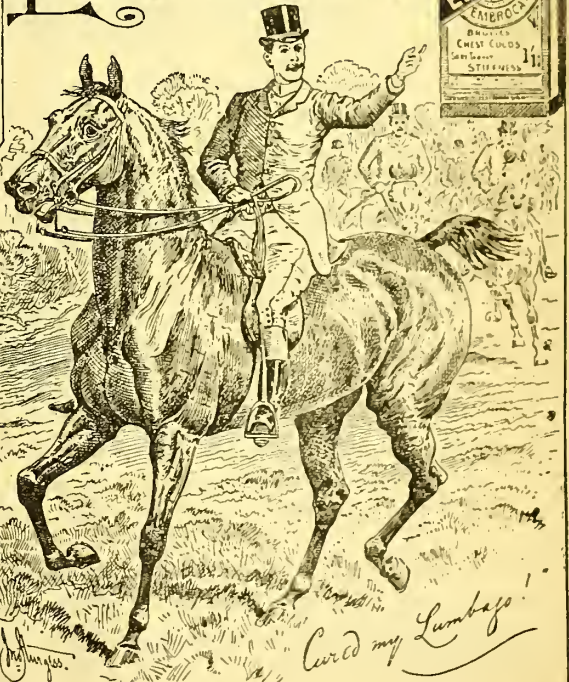


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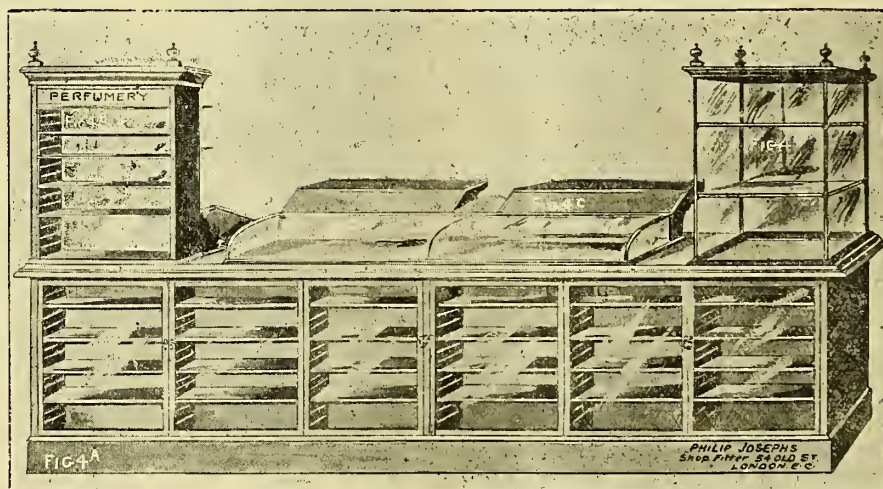


FIG. 4A.—**Serving Counter.**—12 ft. long, with solid mahogany double moulded edged top and mahogany and plate glass sashes under, forming show cases, and fitted with brass bolts, butts, and fasteners, the interiors having movable sliding shelves, **£11 10s.** Also stocked in 6, 7, 8, 9, 10, 11, 13, and 14 ft. lengths; other sizes to order.

FIG. 4B.—**Counter Desk and Perfume Case.**—2 ft. long, case being of mahogany, with plate glass door having lock and key, and plate glass written tablet "Perfumery" fitted inside, with sliding shelves, and lined with mirror; desk having flap rest, lock and key, and drawer inside. Price **£3 10s.** Also a cheaper variety stocked, minus tablet, **45s.**

FIG. 4C.—**Counter Case.**—6 ft. long, mahogany and bent plate glass, with serving and display shelves at back, opening with mirror falls with fitted spring catches, and lined with velvet sliding trays. Price **£5 10s.** Also stocked in 2 ft. 6 in., 3 ft., 4 ft., 5 ft., and 8 ft. long.

FIG. 4D.—**Block or Centre Show Case.**—2 ft. long, all plate glass, including top, opening with mirror plate glass door made on the air-tight principle, and fastening with spring catch; fitted inside with two polished edged plate glass shelves on bronzed adjustable brackets, and tapped bars. Price **£6 15s.**

All packed free for United Kingdom, subject to empties and wrappers being returned free of charge; but for the Colonies and Continent 12½ per cent. on the lot or 15 per cent. on single articles (extra to quoted prices) for battened packing cases, straw, &c.

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BECAUSE notwithstanding its manifest superiority to all other preparations of Cinchona, it is quite inexpensive; ninety-six doses costing only two shillings, or not more than one farthing per dose!

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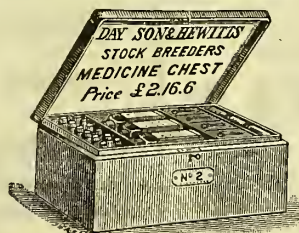
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A sure remedy for the Fret, Colic or Gripes, Influenza, Loss of Appetite in Horses. For Debility, Scour, or Diarrhoea in Horses, Cattle, and Sheep. Hoven or Blown Cattle and Sheep instantaneously relieved.

Price 1/9 per Bottle. 20/- per doz.



For all Feverish Disorders among Cattle, Sheep, and Pigs, and for Colds, Indigestion, Costiveness, Yellow, Surfeit, Loss of Cud, Hide-bound, Red Water, &c. Admirably adapted for Cleansing and checking Feverish symptoms in Cows and Ewes after Parturition, rendering the milk copious, pure, and wholesome. It acts as a safe preventive of milk Fever.

Price (Cows), 13/- per doz. box;
(Ewes), 3/6 per doz. 3-doz. box, 10/-



For Blood Disorders in Horses, Eczema, Surfeit, Nettle-rash, Ringworm, Itching, Ill-Condition, Off-Appetite, Staring Coat, and Sluggishness. Invaluable for Sterility or Barrenness in Horses and Mares, by virtue of its Phosphoric and other stimulating ingredients. Contains no injurious drug and can be given at all times to all breeds of horses without stopping their work.

Price 5/6 per doz. Packets; 3-doz. 15/-
Sold also at reduced rates in Tins 10/6 and £1 each.

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Trade Terms and full particulars
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Attractive Showcards and Handbills
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Royal Animal Medicine Manufactory, 22 DORSET STREET, LONDON, W. [Established 1833.]

WE HAD!

WE HAD!!

WE HAD!!!

WE much regret, and yet we are happy to state that we have been so excessively busy during the past month, that unfortunately we had to stop a great proportion of our advertising. As previously announced, in a little over our first year of trading we sold 500,000 Daisies. The year following we sold 2,500,000 Daisies. We are now in our third year. Last December we trebled the sales as compared with the December previous, and January saw us so excessively busy that we were almost, to use a popular expression, stood on our heads.

We have made important alterations, increased our output, and are rapidly completing further changes to grapple with the increasing trade. Daisy is an up-to-date article (cures Headache in a few minutes) that brings 100 per cent. profit on the bulk of the sales. There is no cutting. It is strongly protected. It is an Agency that will produce good results, pays the Agent and satisfies the Customer. We supply good Printing, Coins for the Counter, Fine Art Showcards, Counter Bills, and help the Chemist all we can. The more he sells, the merrier for us. It is an article that is *bound* to sell, and if you desire to take up a quick-selling, satisfactory, and profit-producing Agency, write to us.

DAISY, Ltd., Faraday Works, Leeds.

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See Over.

DRAW the CROWD and have £6 in the bargain!!!

WE believe in giving the Retail Chemist a "living profit," and we act up to our professions. For £6 12s —quarterly account—we supply 1 gross large boxes of "DAISY" Headache Cure, containing 20 in each box. We allow 10 per cent. for taking the gross quantity, and an extra 10 per cent. for cash on delivery, £5 8s. net. These retail, principally in two's, three's, and four's, at 1d. each, showing a profit of £6 12s., or nearly 125 per cent. upon the outlay.

We have had such a success with the following that we have twice had to re-order a large number of superior high-class working figures of a man clad in fashionable garments, satin waistcoat, glossy linen collar and cuffs, white felt hat, and kid gloves. He is leaning over a board fixed on an ornamental iron stand, opens his eyes, moves his head, and points to the sign which states that "SMART MEN" take "DAISY," for it cures their Headache in a "pew" minutes. He is got up exceptionally well. The window is draped with a long curtain, the figure is placed in the centre, and your own specialities are arranged around. The figure is so taking that Messrs. Hickman, Chemists, Bridgwater, wrote:—"The model is fetching the people, and just the thing to make 'DAISY' HUM." A London Chemist writes (January 26, 1897):—"The model is a great attraction. The Thames is almost on fire with 'DAISY.' Will you sell me the model outright?"

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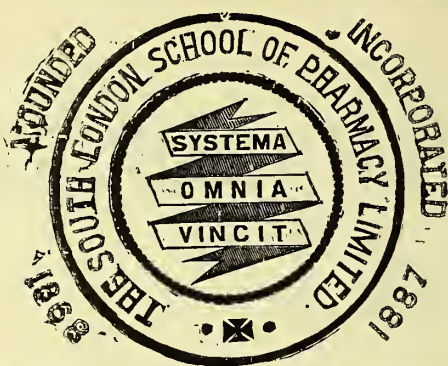
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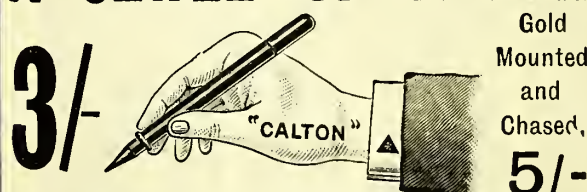
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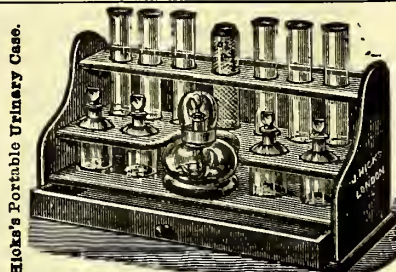
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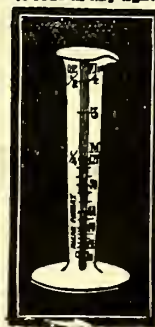
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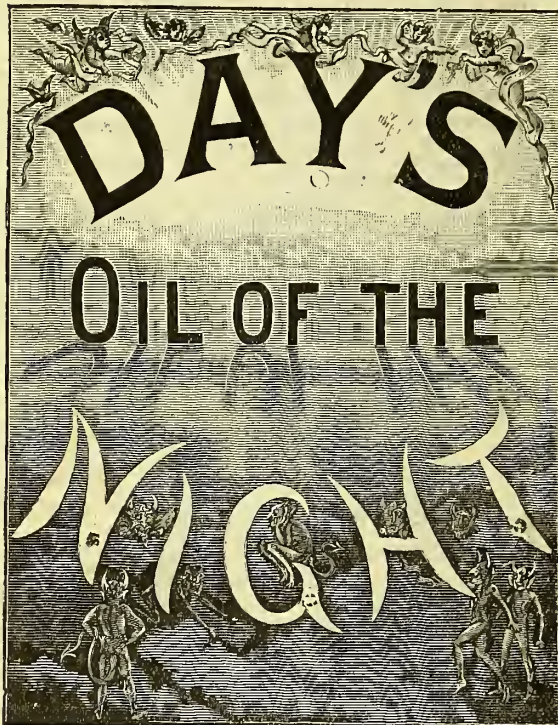
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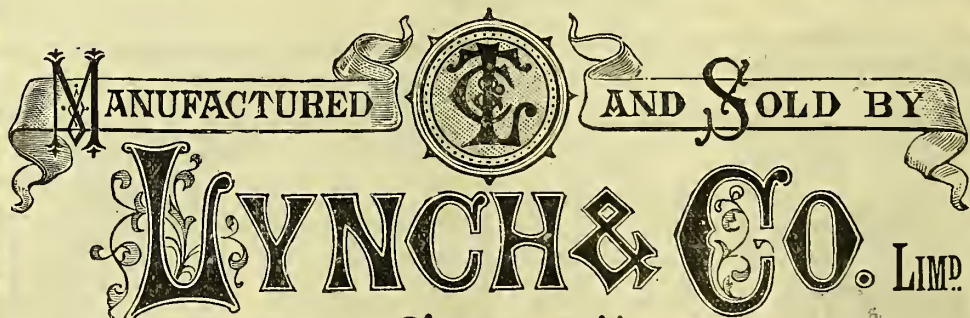


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CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

ACIDS

Boulton, J., & Co., Lim.

ADVERTISING SPECIALITIES

Corran, J. R. | Harris, J.

AERTD & MINRLS

Apollinaris Co.

Barnett & Foster

Bratby & Hinchliffe, Lim.

Burrow, W. & J. (Malvern)

Chemists' Aerated Waters Association, Lim.

Ellie & Son (Ruthin)

Hunyadi János

Idrie & Co., Ltd.

Ingram & Royle, Lim.

Kinnond & Co.

Macfarlan, J. F., & Co.

Mills & Co. (Bourne)

Rosbach Spring, Lim.

Sallyco Water Co.

Wiesbaden Gout Water

DITTO PLANT

(See SPHONS and ESSENCES)

Barnett & Foster

Bratby & Hinchliffe, Lim.

Tyrer, Hayward, & Co.

Volcanic Aeration Co.

AGNCIESABROAD

Austral Drug Co.

Beynon & Co. | Boissy

Kempthorne, Prosser & Co.

Lennon, G. B., & Co. (N.Z.)

Peake, Allen & Co.

Taylor & Colledge

ALKALOIDS

Howards & Sons (Cinchona)

Macfarlan, J. F., & Co.

Smith, T. & H., & Co.

AMMONIA

May & Baker, Lim.

White, A., & Sons

Woolley, Sons & Co.

ANALYSIS

Sutton, F., & Co.

APPARATUS

Bennett, Sons & Shears

Berend, O., & Co.

Woolley, J., Sons & Co.

ASTHMA CURE

Potter & Clarke

BAKING POWDER

Goodall, Backhouse & Co.

BALSAM OF ANISEED

Powell, T. Lim.

BATH & FLESH GLOVES

Maw, S., Son & Thompson

Solport Bros.

Wood, Vincent

BATH SALTS

Sykes' Bath Salt

Tidman & Son, Lim. (Sea Salt)

BEESWAX

Bowdlear & Co.

Evans, Sons & Co.

Kemp & Son

Leonhard, T.

Lunenburg Wachsbleiche

BICARB. SODA

Brunner, Mond & Co., Lim.

Howards & Sons

May & Baker, Lim.

BIPALATINOLIDS

Oppenheimer, Son & Co., Lim.

BISMUTH PREP.

Hearon, Squire & Francis

Hewlett & Sons

Howards & Sons

May & Baker, Lim.

Symes & Co. | Tyrer, T., & Co.

White, Alfred, & Sons

BORAX

Howards & Sons

BOOKS

King, J. K., & Son

Lewis, H. K., | Loiset, A.

Martindale's Extra Pharm.

Sampson Low, Marston & Co., Lim.

Squire's "Companion" | Whitaker & Co.

BRUSHES

Evans, Sons & Co.

Hoyden & Sons

Kent, G. B., & Sons

BOTTLES

Ayrton & Saundere

Barnett & Foster

Barrett, R. H.

Bratby & Hinchliffe, Lim.

Brehm, Lim.

Gilbertson, H., & Sons

Hearn, Wright & Co.

Isaacs & Co.

Johnsen & Jørgensen

Kilner Bros.

Lynch & Co., Lim. (Salts)

Maw, S., Son & Thompson

Poths, H., & Co.

Stipendium Stopper Co., Lim.

Toogood, W. | Youldon, E.

Volcanic Aeration Co.

York Glass Co., Lim.

BOXES

Austin & Co. (Cardboard)

Ayrton & Saundere

Evans, Sons & Co.

Glover, C. H., & Co.

Kent, G. B., & Son

Kilner Bros.

Kilross & Black

Patent Stopper, Box, and

Stamping Co., Lim. (Tin)

Robinson & Sons

Volcanic Aeration Co.

Timplate Decorating Co.

BUNSEN BURNERS

Berend & Co.

BUTTER COLR. &c.

Baker, J. W.

Boulton, J., & Co., Lim.

Hatriek & Co., Lim.

Müller & Co.

Tomlinson & Hayward

CACHETS

Christy, T., & Co.

Cooper & Co.

CACHOUS

Bleasdale & Co.

Blyton, Asley & Co.

Jackson, T.

Lloyd, T. H., & Co.

Raines & Co. | Warrick Bros.

CAMPHOR

Howards & Sons

May & Baker, Lim.

CAPSULES

Davies, Gibbins & Co.

Droege, Wm., & Co.

Duncan, Flockhart & Co.

Evans, Lescher & Webb

Hooper, B., & Co.

Lloyd, T. Howard, & Co.

Lofthouse & Saltner

Warrick Bros.

CARBOLIC ACID

Stevenson, H. E., & Co.

CRENIC ACID GAS

Carbonic Acid Gas Co.

CSCRA SAGRADA

Anderson & Co.

Duncan, Flockhart & Co.

Evans, Lescher & Webb

Ferris & Co.

Harker, Stagg & Morgan

Moss, J., & Co.

Parke, Davis & Co.

CHEMICALS

Boehm, Fredk.

Boehring, C. F., & Sohne

Boulton, J., & Co., Lim.

Brauer, Brand & Co., Lim.

Davy, Hill & Son, Yates & Hicks

Evans, Lescher & Webb

Evans, Sons & Co.

Farbenfabriken (Bayer & Co.)

Goodall, Backhouse & Co.

Graf, F.

Howards & Sons (Pharm.)

Kirkpatrick, Barr & Guthrie

Lofthouse & Saltner

Lyon, J. L., & Co.

Macfarlan, J. F., & Co.

May & Baker, Lim.

Moss & Co.

Oppenheimer, Son & Co.

Poppelreuter, W.

Sanitas Co., Lim.

Scottish Acid & Alkali Co., Ltd.

Sharland & Co.

Smith, T. & H., & Co.

Stevenson, H. E., & Co.

Tyrer, T., & Co.

Washington Chemical Co.

White, A., & Sons

Zimmermann, A. & M.

CASTOR OIL

United British Castor Oil Co., Lim.

CERESINE WAX

Boehm, Fredk.

CHALK, PRECIP.

Boehm, Aug., & Co.

CHECK TILLS

O'Brien, T.

Stokes, G. R., & Co., Lim.

CHEST PROTECTRS

Ayrton & Saundere

Liverpool Patent Lint Co.

Lynch & Co., Lim.

Maw, S., Son & Thompson

Newbery, F., & Sons

Schutze & Co.

Solport Bros.

Wood, Vincent

CHLOR. OF LIME

Government Sanitary Co.

Hebden, W. C.

National Chemical Co.

Steel, J. C., & Co.

CHLOROXYNE

Davenport (Browne's)

CHLOROFORM

Duncan, Flockhart & Co.

Macfarlan, J. F., & Co.

Smith, T. & H., & Co.

CINCHONA BARK

Coca Wine

Burrough, J.

French Hygienic Society

Harker, Stagg & Morgan

COD-LIVER OIL

Allen & Hanburys
Burroughs, Wellcome & Co.
Cuthbert, R.
Davies, Gibbins & Co.
Evans, Lescher & Webb
Evans, Sons & Co.
Harker, Stagg & Morgan
Hill, A. S., & Son
Kemp & Son | Lorimer & Co.
Möller, P.
Moss, J., & Co.
Oppenheimer, Son & Co., Lim
Smith, T. & H., & Co.
Spratt's Patent (Dog Cakes)
Scott's Emulsion
Southall, Bros. & Barclay
Stevenson, H. E., & Co.
Wright, Layman & Umney

COMBS

Hovenden & Sons

COMP. MEDICINS

Allen & Hanburys
Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Davies, Gibbins & Co.
Hooper, B., & Co. | Leo & Co.
Lloyd, T. Howard, & Co.
Parke, Davis & Co.

CONCENT. LIQRS

Baile Bros., & Co.
Davies, Gibbins & Co.
Fletcher, Fletcher & Co.
Lloyd, T. Howard, & Co.
Oppenheimer, Son & Co.

CONFECTIONERY

Blyton, Astley & Co.
Gibson & Sons
Guest, T., & Co. | Hillaby, J.

CORKS

Ringrose & Cobb | Brooks, T.

CORN CURES

Beetham & Son
Gardner, C.
Potter & Clarke

COTTON WOOL

Robinson & Sons (Absorbent)

CRASH LINSEED

Evans, Gadd & Co.
Mumford, G. S.

CYDER

Symons, J., & Co., Lim.

IDENTIFIERS, &c.

Beecham, T.
Bronnley, H., & Co.
Hovenden & Sons
Jewsbury & Brown
Stevens, P. A.
Sutton, O., & Co.
Wilson, A.
Woods, W. (Arecia Nut)
Wright, Chas., & Co., Lim.

DENTISTRY

Browning, A. J.
Fentiman, A. G.
Fentiman & Co.

"DIMATOS"

Southall Bros. & Barclay

DISINFECTANTS

Beedler & Co. | Brooks, T.
Dussek Bros.
Government Sanitary Co.
Granville, A., & Co.
Hebden, W. C.

"IZAL"

Jeyes Sanitary Compounds Co.
Kay Bros., Lim.
Kühn, B. (Chinosol, Kresochine)
Mackey, Mackey & Co.
May & Baker, Lim.
National Chemical Co.
Ness & Co.

"Nestor" Sanitary Fluid Co.

Read, Holiday & Co.
Sanitas Co., Lim.
Tuson's Disinfectants Co., Ld.
Tyler, T., & Co.

DOG MEDICINES

Lloyd, T. Howard
Spratt's Patent, Lim.

DRUGGISTS' SUN.

Ayrton & Saunders
Barclay & Sons, Lim.
Bleasdale & Co., Lim.
Dailley & Wilkinson
Cartwright, A. S.

Evans, Lescher & Webb

Evans, Sons & Co. (Savars)

Fordham, W. B., & Sons, Lim.

Hovenden & Sons

Kahler, G., & Co.

Kay Bros., Lim.

Marshall, Lim.

Maw, S., Son & Thompson

May, Roberts & Co.

Newbery, F., & Sons

Potter & Sacker

Quelch, H. C.

Sanger & Sons | Schutze & Co.

Sharland & Co.

Southall Bros. & Barclay

Tidman & Son | Teogood, W.

Wood, Vincent

DRUGS

Allen, S., & Sons (Grinders)
Beynon & Co.
Bleasdale & Co., Lim.
Davies, Gibbins & Co.
Dieterich, Eugen
Kahler, G., & Co.
Meinertzhagen, E.
Oppenheimer, Son & Co.
Phillips & Co. (Grinders)
Poppelreuter, W.
Sharland & Co.
Stevenson, H. E., & Co.

EAU DE COLOGNE

Farina, J. M.
Muhlen, F.
Van Oppen & Co.

ECZEMA

Cullwick's Specialties

EMBRICATIONS

Bow's Liniment
Day & Sons
Elliman, Sons & Co.
Harvey & Co.
Tuson's Disinfectants Co., Ld.

ENGRAVERS

Corsan, J. R.

ENEMAS

British-American Ball Nozzle
Evans, Sons & Co. (Co.)
Lynch & Co., Lim.

ESSENCES

Boulton, J., & Co., Lim.
Bovril, Lim. (Beef)
Bratby & Hinchliffe, Lim.
Bush, W. J., & Co.
Delbanco & Co.

Fletcher, Fletcher & Co.

Goodall, Backhouse & Co.

May & Baker, Lim.

Newball & Mason

Stevenson & Howell

Todd, A. M.

Tyrer, P. (Anchovies)

Woolley, Sons & Co.

ESSENTIAL OILS

Allen, S., & Sons
Blackwell, Hayes & Spillsbury
Boehm, Fredk.
Bush, W. J., & Co.
Delbanco & Co.

Evans, Sons & Co.

Fensdell, Friedrich

Jackson, J., & Co.

Jeancaud, Gazan & Doumin

Kahler, G., & Co.

Lewig, Mark, Lim.

Edwards & Baker, Lim.

Poppelreuter, W.

Ransom, Wm., & Sons

Sanitas Co., Lim.

Stevenson, H. E., & Co.

Stevenson & Howell

Todd, A. M.

Treatt, R. C. | Warrick Bros.

Wright, Layman & Umney

ETHER

Duncan, Flockhart & Co.

Howards & Sons

Macfarlan, J. F., & Co.

May & Baker, Lim.

Robbins, J., & Co.

Tyrer, T., & Co.

White, A., & Sons

Woolley, Sons & Co.

Wright, Layman & Umney

EXTRACTS, FLUID

Allen & Hanburys

Allen, G., & Co.

Bleasdale & Co., Lim.

Burgoyne, Burdidge & Co.

Evans, Gibbins & Co.

Evans, Sons & Co.

Fletcher, Fletcher & Co.

Heaton, Squire & Francis

Hooper, B., & Co.

Lloyd, T. Howard, & Co.

Moss & Co.

Parke, Davis & Co.

Potter & Clarke

Maw, S., Son & Thompson

Ransom, W., & Son

Wright, Layman & Umney

EUCALYPTUS OIL

Drysdale, J. W., & Co.

Sanitas Co., Lim.

Tasmanian Eucalypt Oil Co.

EXTRACT MEAT

Armour & Co. | Brand & Co.

Liebig Co.

Liquor Carnis Co.

EXTRACTS, SOLID

Allen, G., & Co.

Ransom, W., & Son

FEED BOTTLES

Burroughs, Wellcome & Co.

(Thermo Safe)

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Gibbertson, H., & Sons

Hearn, Wright & Co.

Hovenden & Sons

Kilner Bros.

Lynch & Co., Lim.

Marriott, E., & Co.

Maw, S., Son & Thompson

May, Roberts & Co.

Shirley Bros. | Youldon, E.

FILTERS

Mawson Filter Co.

FLY CATCHERS

Bleasdale, Lim.

Buchan, D. D.

Ford, Shapland & Co.

Marshall, Lim.

Maw, S., Son & Thompson

Strong, Christy

Tunbridge & Wright

FOOD (Infants' & Invalids')

Allen & Hanburys

Benger's Food

Brag, J. L.

Brand & Co.

Christy, T., & Co.

Frame Food Co., Lim.

Goodall, Backhouse & Co.

Hawksley, T. (Steriliser)

Horlick & Co.

Kyde & Co.

Liquor Carnis Co.

Liebig Co. | Lorimer & Co.

Mellin's Food | Nestlé, H.

Savory & Moore

Tyrer, P.

Vi-Cocoa (Dr. Tibbles)

Velonacet Glass Works

GELATINES

Boehm, F.

GINGER ALE

Bratby & Hinchliffe, Lim.

Chemists' Aerated & Mineral

Water Association, Lim.

Ellis & Son

Mills, R. M., & Co.

GLYCERINE

Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Price's Candle Co., Lim.

GRANULAR PREP.

Bishop, A., & Sons
Blyton, Astley & Co.
Boulton, J., & Co.
Davies, Gibbins & Co.
Evans, Gadd & Co.

Evans, Sons & Co.

Heaton, Squire & Francis

Lloyd, T. Howard & Co.

Tyrer, T., & Co.

Wright, Layman & Umney

GUM

Fink & Co. (Arabic, &c.)

HAIR PREP.

Alexandre's Shadeline

Brooks, Tom

Chesebrough Co.

Deplene Co.

Edwards & Baker, Lim.

Koko Maricopas Co.

Thiellay, E. H.

Treutli, H. P., Lim.

HERB BEER EXTS.

Newball & Mason

Burroughs, Wellcome & Co.

HOMOEOPATHIC

Keene & Ashwell

Leath & Ross

Watson & Wates

HONEY

White, G., & Sons

HYPOPHOSPHES

Duncan, Flockhart & Co.

Fellowes

Fletcher, Fletcher & Co.

Tyrer, T., & Co.

INHALERS

Arema Manufacturing Co.

Burroughs, Wellcome & Co.

Krohne & Sesemann

Lynch & Co., Lim.

Martindale, W.

Sanitas Co., Lim.

INSECTICIDES

Barclay & Sons, Lim.

Bleasdale, Lim.

Jackson, T.

Sanitas Co., Lim.

Tunbridge & Wright

JELLOIDS

Warrick Bros.

KETCHUP

Tyrer, P.

LARD

Ewen, J., & Sons

LAVENDER WATER

Jackson, J., & Co.

LEECHES

Fitch & Nottingham

LINT

Burgoyne, Burdidge & Co.

Christy, T., & Co.

Liverpool Lint Co.

Maw, S., Son & Thompson

Newsome, C.

Robinson & Sons

LIQUORS

Blackwell, Hayes & Spillsbury

Davies, Gibbins & Co.

Fletcher, Fletcher & Co.

Lloyd, T. Howard, & Co.

Moss, John, & Co.

Oppenheimer, Son & Co., Lim.

Stevenson, H. E., & Co.

LIQUORICE

Evans, Sons & Co. (Savarini)

Hillaby, J.

Lorimer & Co.

"Solazzi"

LOZENGES

Allen & Hanburys

D

RENNET

Duncan, Flockhart & Co.
Evans, Gadd & Co.
Lorimer & Co.
Müller & Co.
Tomlinson & Hayward

RUBBER GOODS

Powell & Barstow

SALICIN

Macfarlan & Co.
Smith, T. & H., & Co.

SALICYLIC ACID

Burgoyne, Burdidge & Co.
Kühn, B.

Zimmermann, A. & M.

SARSAPARILLA

Potter & Clarke

SAUCES, PICKLES

Goodall, Backhouse & Co.
Maw, S., Son & Thompson

Tyrrer, P.

SCHOOLS, &c.

Central (Edinburgh)
City School (Skerry's)
Glasgow School of Pharmacy
Liverpool School
Manchester Col. of Pharmacy
Metropolitan Col. of Pharmacy
North of England School
Northern College of Pharmacy
Royal Dispensary (Edinburgh)
Sheffield College of Pharmacy
South London School of Pharmacy, Lim.
The School of Pharmacy
Westminster College

SCIENTIFIC INSTRUMENTS

Darton Co. | Hicks, J. J.

SEA SALT

Tidman & Son, Lim.

SEEDS

Brook, Parker & Co.
Potter & Clarke
Spratt's Patent, Lim. (Bird)

SEIDLITZ POWDERS

Blyton, Astley & Co.
Davies, Gibbins & Co.

Hors & Co. | May, Roberts & Co.

SELTZGENES

Bratby & Hinchliffe, Lim.

May, Roberts & Co.

Volcanic Aeration Co.

SERUM

Greenf, R. W., & Co.

SHAVING

Hovenden & Sons (Euxesis)

Lloyd, A., & Co. (A. S. Lloyd's Euxesis)

Truett, H. P., Lim.

SHEEP DIP

Harescough & Co.
Jeyes' Sanitary Compounds Co.
Kühn, B. (Kresochine)
Ness & Co.
Sanitas Co., Lim.

SHOP FITTERS

Bowling & Govier

Bygrave, J. & W.

Evans, Sons & Co.

Josephs, C. & Co.

Josephs, Philip

Mills, H.

Treble, G., & Son

Vales, W. S.

SMELLING SALTS

Mackenzie's Cure

SOAP

Blondeau et Cie (Vinolia)

Bronnley, H., & Co.

Cook, E., & Co.

Gibbs, D. & W. (Medicated)

Huggins' Soap Works, Lim

Jamieson, W. (Arsenical)

Jeyes' Sanitary Compounds Co.

Mackenzie's, Dr. (Arsenical)

Muhlen, F.

Pears, A. & F., Lim.

Sanitas Co., Lim.

Sharp Bros. Soap, &c., Co., Ltd.

Sinclair, J., & Son

Tidman & Son

Wright, Layman & Umney

SPECTACLES

Botwright & Grey

Darton, F., & Co.

Raphael, J., & Co.

SPONGES

Cohen, I. & M.

Cresswell Bros. & Schmitz

Peterson, M., & Co.

STAMPS (RUBBER)

Hickinson, J.

STARCH

Critchley (Gloss)

Hebden, W. C.

STEEL BARRELS

Iron and Steel Plant Co., Lim.

STOPPERS

Austin & Co. (Sprinklers)

Barnett & Foster | Mellin, C.

Patent Stopper, Box, and

Stamping Co., Lim.

Stipendium Stopper Co., Lim.

STOVES

Clark, S., & Co., Lim.

SUGAR OF MILK

Boehm, Fredk.

SURGICAL

Accrington Surgical Appliance

Co.

Ayrton & Saunders

Bailey, W. H., & Son

Barclay & Sons, Lim.

British-American Ball Nozzle

Burgoyne, Burdidge & Co.

Cocking, J. T.

Eschmann Bros. & Walsh

Ferris & Co.

Haywood, J. H.

Ickringill's Hygienic Cloth

Syndicate, Lim.

Kühn, B. (Ethyl Chloride

Anestile)

Krohne & Sesemann

Lindsey & Sons

Liverpool Patent Lint Co.

Lynch & Co., Lim.

Macfarlan, J. F., & Co.

Maw, S., Son & Thompson

Oppenheimer, Son & Co.

Powell & Barstow

Quelch, H. C.

Robinson & Sons

Sanitas Co., Lim.

Schutze, F., & Co.

Victoria Rubber Co

Wood, Vincent

Woodruff, T.

SYPHONS

Barnett & Foster

Bratby & Hinchliffe, Lim.

British Syphon Mfg Co.

Chemists' Aerated and Mineral

Waters Association, Lim.

Iaris & Co., Lim.

Kilner Bros. | Mellin, C.

SYRUPS

Beckett, W., Sons & Co.

Blyton, Astley & Co.

Fletcher, Fletcher & Co.

(Liquors)

Stevenson & Howell

Volcanic Aeration Co.

TABLETS

Allen, A.

Blyton, Astley & Co. (Sulphur)

Corsan, J. R. (Advertising)

Davies, Gibbins & Co.

TEA

Pearse & Meeking

Tower Tea, Lim.

THERMOMETERS

Ayrton & Saunders

Bailey, W. H., & Son

Barton, F., & Co.

Hicks, J. J.

TEETHING PADS

Cartwright, A. S.

Marriott, E., & Co.

TOBACCO & CIGRS

Singleton & Cole, Lim.

TINCTURES

Blackwell, Hayes & Spilsbury

Davies, Gibbins & Co.

Evans, Sons & Co.

Hewlett, C. J., & Son

Lloyd, T. Howard, & Co.

Moss, John, & Co.

Parke, Davis & Co.

Sinclair, Phillips & Co.

Wyleys, Lim.

TOILET

Ayrton & Saunders

Burroughs, Wellcome & Co.

Dee Oil Co., Lim. (Lanoline)

Hovenden & Sons

Maw, S., Son & Thompson

Pinnacle Soap Stand Co.

Sanitas Co., Lim. (Co., Lim.)

Sharp Bros. Soap & Perfumery

Southall Bros. & Barclay

Squire & Sons

Tidman & Son, Lim.

Townsend, J. (Paper)

Truett, H. P., Lim.

TOOTH PASTE

Beecham, T.

Jewsbury & Brown

Luthen & Co.

Maw, S., Son & Thompson

Parke, Davis & Co.

Sutton, O., & Co.

Wilson, A. (Hunter's)

Woods, M. (Arca)

TRADE MARKS

Browne, T. B.

URETHRANE

Howards & Sons

Vaccine Association (Lymph)

VACCINATION

Maw, S., Son & Thompson

Vaccine Association (Lymph)

VALUERS AND**TRANSFER AGENTS**

Berdoo & Co. | Brett, F. J.

Crocker, G. B., & Co.

Ferguson & Osborne

Orridge & Co.

Tomlinson, Thos., & Son

VASELINE

Chesebrough Co.

VETERINARY

Bird & Storey

Dawes, G. F. | Day & Sons

Day, Son & Hewitt

Elliman, Sons & Co.

Harvey & Co. | Leng, A., & Co.

Lloyd, T. Howard, & Co.

Rookledge, F. E.

Sanitas Co., Lim.

Spratt's (Dogs)

Walker, Troke & Co.

Willson, S. (Pig Powders)

VINEGAR

Grimble & Co.

VINOLIA Superfatted

Blondesu et Cie.

WEED KILLER

Acme Chemical Co., Lim.

Mark Smith, Ltd.

Sanitas Co., Lim.

Tomlinson & Hayward

WHOLESALE & EXPT**DRUGGISTS**

Allen & Hanbury

Allen, S., & Son | Balsa Bros.

Barron, Harvey & Co.

Bleasdale & Co., Lim.

Brook, Parker & Co. (Botanic)

Burgoyne, Burdidge & Co.

Bush, W. J., & Co.

Davies, Gibbins & Co.

Davy Hill & Son, Yates & Hicks

Evans, Gadd & Co.

Evans, Sons & Co.

Evans, Lescher & Webb

Ferris & Co. | Graf, F.

Goodall, Backhouse & Co.

Harker, Slagg & Morgan

Harrington Bros.

Hearon, Squire & Francis

Hewlett & Son

Hill, A. S., & Son

Kemp, Wm., & Son

Lloyd, T. Howard, & Co.

Lothouse & Saltmer

Macfarlan, J. F., & Co.

Potter & Clarke

Raimes & Co.

Raimes, Clark & Co.

Smith, B. A., & Co.

Stevenson, H. E., & Co.

Taylor & Colledge

Willows, Francis & Butler

Woolley, Jas., Sons & Co.

Wright, Layman & Umney

Wyleys, Lim.

WINES, SPIRITS,**BEER, &c.**

Burgoyne, P. H., & Co.

Burroughs, J.

Coleman & Co., Lim.

French Hygienic Socy. (Coca)

Goodall, Backhouse & Co.

Holloway, E. A.

Mead Manufacturing Co. (Vin

Kafra)

Millar, A., & Co. (Orange)

Phillips, G., & Co. | Robinson, B.

Smith, S., & Co. (Orange)

Stevenson, H. E., & Co.

Symons, J., & Co., Lim.

SYPHONS SELTZOGENES



Messrs. J. BARRE JOHNSTONE & CO., 20 Loftus St., Sydney, N.S.W., Agents for New South Wales, Queensland, and New Zealand.
Messrs. NOYES BROS., 43 Queen Street, Melbourne, Victoria, Agents for Victoria, South and West Australia, and Tasmania.

**SODAWATER
MACHINERY**
AND APPLIANCES
BRATBY & HINCHLIFFE LTD
ANCOATS 146 MINORIES
MANCHESTER LONDON

81 ROBERTSON STREET, GLASGOW.

PRICES.

SYPHONS — 1/6, 1/8, and 1/10 each.

SELTZOGENES.

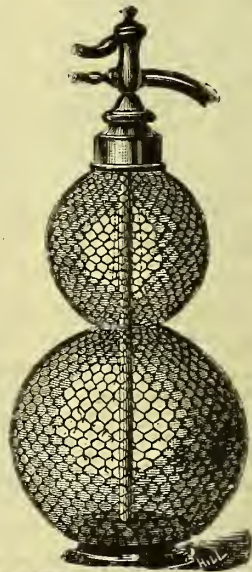
1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

Including two funnels and stopper for charging.

The tops of these Seltzogenes are made of pure block tin, guaranteed.

American Agents.—For New York and East, WM. G. SMITHERS, 11 Duane St., New York.
For Chicago and West, VICTOR BAROTHE, 409 Dearborn St., Chicago.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



MAKE YOUR OWN MINERAL WATERS.

See Pages 442 and 443, *Chemist and Druggist* Diary, 1897.

A great many Chemists, Hospitals, &c., are using this simple and most effective Plant, and producing splendid Aerated Waters.

SUPPLIED ONLY BY

THE VOLCANIC AERATION CO., 203 Great College Street, LONDON, N.W.

J. G. CHAPMAN, Proprietor.



A COMPLETE APPARATUS,
CAPABLE OF PRODUCING
OVER

300 DOZ. BOTTLES

of Aerated Water per day,
at a minimum of cost,
from

£20.

SODA-WATER MACHINERY
AND BOTTLES, SYPHONS, AND ALL APPLIANCES FOR THE TRADE.
NO DANGER. NO MESS.

Write for
ILLUSTRATED
CATALOGUE,
Post Free upon Application.

BARNETT & FOSTER

NIAGARA WORKS,

26th EAGLE WHARF ROAD, LONDON, N.

9 Gold Medals. 44 Highest Awards.



Hunyadi Janos

The revised prices of the above (to the Trade) have been fixed by Mr. Andreas Saxlehner, the Proprietor, as under:—

22/6 per case of 25 large bottles, or 12/- per dozen.

35/- " of 50 half-bottles, or 10/- "

SPECIAL TERMS FOR QUANTITIES ON APPLICATION.

CARRIAGE PAID. TERMS.—STRICTLY NET.

INGRAM & ROYLE, L^{TD}.

VICHY

Sole Agents for

52 FARRINGTON ST.
LONDON, E.C.

VICHY

LIVERPOOL—19 South John Street.

BRISTOL—80 Redcliff Street.

Carriage Paid. Price List of all Natural Mineral Waters on Application.

KINMOND'S

ROYAL LEAMINGTON

TABLE WATERS

Were first supplied to
H.M. the Queen in 1858, and to
H.R.H. the Prince of Wales in 1862.

UNRIVALLED for PURITY and QUALITY.

IN ORDINARY BOTTLES AND SYPHONS.

MANUFACTORY—
LEAMINGTON.

Send for Trade List and Compare Prices.

HOLY-ROOD TABLE WATER.



Shown by analysis to be equal to the best imported,
and is **FAR MORE ECONOMICAL.**

Highly Commended by LEADING MEDICAL AUTHORITIES

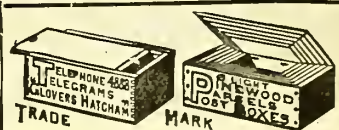
"It is a well aerated and pleasant Table Water, without
a trace of bitterness."—*British Medical Journal.*

J. F. MACFARLAN & CO.
Abbeyhill Chemical Works,
EDINBURGH.

"A CAPITAL IDEA"!!

Said friend JONES, the GO-AHEAD CHEMIST. "I'VE DOUBLED
MY TRADE last year since I commenced packing all my
customers' prescriptions in Glover's small wood
boxes."

And JONES CHUCKLED!!



"CAPITAL, INDEED"!!!

Said the Colonial Shipper. "Those light nested
boxes, shipped in cases (each containing 1-gross nested),
are just what is wanted, and I am getting repeat orders
doubled. We are all indebted to the Makers,

Messrs. C. H. GLOVER & CO., of Hatcham Sawmills, Ormside St.,
Old Kent Road, LONDON, S.E."!!

WIESBADEN GOUT WATER

(WIESBADENER GICHTWASSER).

This water, when taken in sufficient quantity, is an absolutely certain remedy for Gravel and Uric Acid Calculi, and a most certain prophylactic against both Acute and Chronic attacks of Gout.

WIESBADEN GOUT WATER

Can be obtained from any Chemist or Mineral Water Dealer throughout the United Kingdom in bottles containing $\frac{3}{4}$ litre.

In cases of 1 doz. each, 12/6 per doz.; in cases of 3 doz. each, 12/- per doz., at cellars in London.

WIESBADENER BRUNNEN COMPTOIR.

LONDON AGENCY—L. R. VOIGT & CO., 25 Great Tower St., LONDON, E.C.

DEPOTS—

LONDON—Wholesale Depot, Messrs. Ingram & Royle, Limited, 52 Farringdon Street, E.C.

„ Messrs. E. Gallais & Co., 90 Piccadilly, W.

ABERDEEN—Messrs. Paterson & Sons, Spring Gardens.

BIRMINGHAM—Messrs. Southall Bros. & Barclay, Lower Priory.

BOMBAY—Messrs. Kemp & Co., Limited, 7 Elphinston Circle.

BOURNEMOUTH—Messrs. G. E. Bridge & Co., 128 Old Christchurch Road.

BRIGHTON, EASTBOURNE, and HASTINGS—Messrs. R. Fry & Co., Limited, Middle Street.

BRISTOL—Messrs. Ferris & Co., Union Street.

CALCUTTA—Messrs. Hadenfeldt & Co.

CAMBRIDGE—Mr. H. T. Parson, 5 Peas Hill.

CHELTENHAM—Messrs. Butcher & Pattison, 418 High Street.

CORK—Messrs. Kiloh & Co., Limited, 108 Patrick Street.

DUBLIN—Messrs. Hamilton, Long & Co., Limited, 3 Lower Sackville Street, 107 Graham Street, and 1 Rathmines Terrace.

EDINBURGH—Messrs. Duncan, Flockhart & Co., 104 and 106 South Canongate.

EXETER—Messrs. Evans, Gadd & Co., 97-100 Fore Street.

GLASGOW—Glasgow Apothecaries' Company, 32 and 34 Virginia Street.

HULL—Messrs. Lofthouse & Saltmer, 12 Market Place.

JERSEY—Mr. John T. Baker, 27 Halkett Place.

LEEDS—Messrs. Reynolds & Branson, 14 Commercial Street.

LIVERPOOL—Messrs. Clay & Abraham, 87 Bold Street.

MANCHESTER—Messrs. Jewsbury & Brown, 113 Market Street.

NEWCASTLE-ON-TYNE—Messrs. John Ismay & Sons, 17 Great Market.

NORTHAMPTON—Mr. John Bingley, F.C.S., Bailiff Street.

NORWICH—Messrs. Smith & Sons, 44-48 Magdalen Street.

SHEFFIELD—Mr. G. T. Newsholme, 27 High Street.

SLIGO—Mr. H. BOYERS, 20 Knox Street.

SOUTHAMPTON—Messrs. Randall, Sloper & Co., Lansdowne

YORK—Messrs. Raimes & Co., 13 Micklegate. [Buildings.]

IMITATED BUT NOT EQUALLED!!

MASON'S
IS THE ORIGINAL
EXTRACT OF HERBS

No other Extract makes Beer like it!!

INVENTORS AND MANUFACTURERS—

NEWBALL & MASON, NOTTINGHAM.

PETER TYRER'S SAUCES

WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

	Per gross.	Extra quality.		Per gross.	Extra quality.
1d. Sample Bottles, dozen parcels	5/3	6/3	1/2 Bottles, flat or round, reputed half-pints ..	16/-	26/-
1d. Giant " 1/2-gross boxes	5/9	6/9	1/2 pints ..	28/-	38/-
1d. Giant " dozen parcels	6/-	8/6	1 Pint Imperial, round stoppered bottles ..	52/-	62/-
" " 1/2-gross boxes	6/6	9/-	12 1/2 Gallon Casks (casks free) each	30/-	32/-

ROYAL CAFE SAUCE, a Rich Fruity and Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly 1/2-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.
CHIEF SCOTCH AGENCY — West Nile Street, GLASGOW.

The Public say : **"There is Merit in it,"**

And the Trade say : **"There is Money, Plenty of Money, in it."**

The renewal orders we are daily receiving are convincing evidence that DR. TIBBLES' VI-COCOA has been favourably received by the public. There is certain, therefore, to be a very large demand, as it is a thoroughly scientific compound offering advantages possessed by no other preparation.



6d. Packets (Retail); 2 dozen in a box, 5/- per dozen.

9d. Tins (retail); 2 dozen in a box, 7/6 per dozen.

1/6 Tins (Retail); 1 dozen in a box, 15/- per dozen.

DISCOUNTS.—5 per Cent. Discount on Orders up to £5.
7 1/2 per Cent. Discount on Orders for £5 and upwards.

TERMS—Cash within 7 days.

CARRIAGE PAID on Orders value £2 and upwards.

ATTRACTIVE SHOWCARDS, &c., liberally supplied with all Orders.

Send your Order to Dr. TIBBLES' VI-COCOA, Ltd., Suffolk House, Cannon St., LONDON, E.C.

And obtain your fair share of the profits that are daily being made by our customers everywhere.

"LIVE, and LET LIVE."

THE FRAME FOOD CO., LTD., desire that all retailers should have a reasonable, living profit on the sale of "Frame Food" Preparations. To ensure this they have fixed minimum retail prices, below which they will not permit their goods to be sold. They also give no graduated discounts on large orders, but allow their highest discount on purchases of £2 value and upwards, thus placing all retailers upon the same terms.

Goods sent carriage forward. No Packages charged or to return.

These terms ensure an average Profit of over 30 per cent. on goods sold at advertised prices, and of 20 per cent. at minimum prices.

Write for Trade Terms and Anti-cutting Agreement.

Satisfactory references or cash required for new customers.

An Attractive FRAMED SHOWCARD, and Leaflets with Retailer's printed Address (in red ink), sent Carriage Free on application—(MENTION THIS PAPER). The Frame Food Co. trust that retailers will show their appreciation of the Company's efforts to ensure them a reasonable profit on the sale of "Frame Food" Preparations, by exhibiting the Showcards and distributing the Leaflets.



New & Improved Package.

LARGER PROFIT TO RETAILERS.



THE FRAME FOOD CO. have adopted a new air-tight covered Jar for "Frame Food" Jelly, which will ensure its keeping any length of time. In fixing the Retail and Trade Prices of the new package, they have taken the opportunity of securing a larger margin of Profit to Retailers, who will find it to their advantage to recommend the Jelly to their customers.

The 1s. and 7d. sizes are now withdrawn.

"Frame Food" Jelly possesses the nutritive and digestible properties of Malt Extract, and is much cheaper and more palatable.

Advertised Retail Price, 9d.;

Minimum Retail Price, 8 1/2d.

TRADE TERMS ON APPLICATION.

FRAME FOOD CO., LTD., LOMBARD RD., BATTERSEA, LONDON, S.W.

"SOLAZZI" LIQUORICE JUICE

THE CHEMISTS' BRAND.

THE TESTIMONY OF "THE LANCET."

The following is from "THE LANCET" of March 30, 1895.

"The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable."

Recommended also by "The British Medical Journal," "Health," "The Chemist and Druggist," "Food and Sanitation."

ASK FOR SHOWCARDS AND HANDBILLS.

GUEST & CO.

CITY WORKS, GARRUTHERS STREET, MANCHESTER.

MAKERS OF MEDICATED LOZENGES AND JUJUBES.

B.P., T.H. Ph., and General Proprietary Lozenges. Finest Gum Jujubes and Pastilles—Glycerine and Black Currant, &c. Granular and all other Effervescing Preparations. Boiled Sugars, Floral Tablets.

SEND FOR LIST, SAMPLES, AND COMPARE.

TELEPHONE 235. TELEGRAMS "GUESTO."

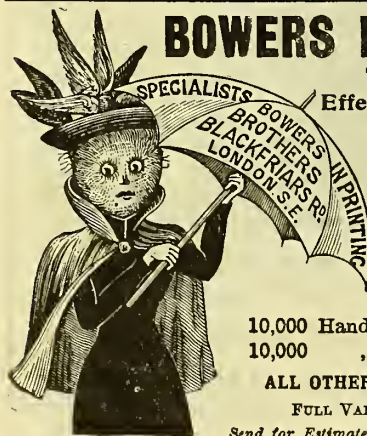
FOR INFANTS AND INVALIDS.

KYDDE'S FOOD

IS UNEQUALLED.

KYDDE & CO.

10 SOUTHWARK BRIDGE ROAD, LONDON, S.E.



BOWERS BROTHERS

The Chemists'
Effective Printers and
Advertisement
Designers,
Invite Correspondence.

**NOVEL DESIGNS,
GOOD WORK,
LOW PRICES.**

10,000 Handbills 17/6 9 x 5½
10,000 " 11/- 7½ x 5

ALL OTHERS EQUALLY LOW.

FULL VALUE IN ALL LINES.

Send for Estimates before ordering else: h. re.

IRISH HONEY

AT REDUCED PRICE.

We offer Irish Honey in Kegs of about 80 lbs. net.

Single Kegs at ..	50/- per cwt.
Five " ..	49/- "
Ten " ..	48/- "

14-lb. Self-opening Tins, 2- per cwt. extra.
7-lb. " " 3/- " "

The quality is very fine this Season. Some Honey of 1894 and 1895 at 32/- per cwt.

Beeswax, warranted genuine, at £9 per cwt.

Cash Discount, 2½ per cent. Packages free.

GEORGE WHITE & SONS, WATERFORD.

BEE SWAX.

GUARANTEED PURE, YELLOW AND WHITE.

In Blocks, Cakes, Tablets, or any other form at lowest possible prices.

FREE TO ANY PLACE OF THE UNITED KINGDOM.
AND BEST PURE BLEACHED CARNAUBA WAX.

LÜNEBURGER WACHSBLEICHE

(Wax Bleaching Works),

LÜNEBURG, near HAMBURG, GERMANY.

PEPTARNIS

(PEPTONE OF BEEF).

One great drawback to our medical comforts is their cost. Science has overcome this difficulty, however, in producing PEPTARNIS. It is an ideal Invalid Food, wonderfully nourishing, and inexpensive.

[2]

Prices Protected from Cutting.



VINACOCA.

Sold in Bottles at 3s. 6d. each or 40s. per dozen, Retail.
ALSO

COCA LIQUEUR

The best Restorative,
The best Nerve Tonic,
The best Renewer of Health is

ROLLAND'S COCA LIQUEUR.

Sold in Fancy Wickered Bottles, 7s. 6d. each, Retail.

COCA is prepared in various forms: COCA WINE, COCA LIQUEUR,
COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA,
COCA CHOCOLATE, COCA TOBACCO, &c.

SOLE PROPRIETORS OF

THE NEW VAPORISER, "OUR OWN."

ENGLISH MADE.

Prices from 15s. each; Eau de Lis 2s. 6d. per bottle.

Usual Trade Discount. Pamphlets for distribution, carriage paid.

FULL PARTICULARS FROM

THE FRENCH HYGIENIC SOCIETY, 6 CONDUIT STREET, LONDON, W.
REGENT STREET,



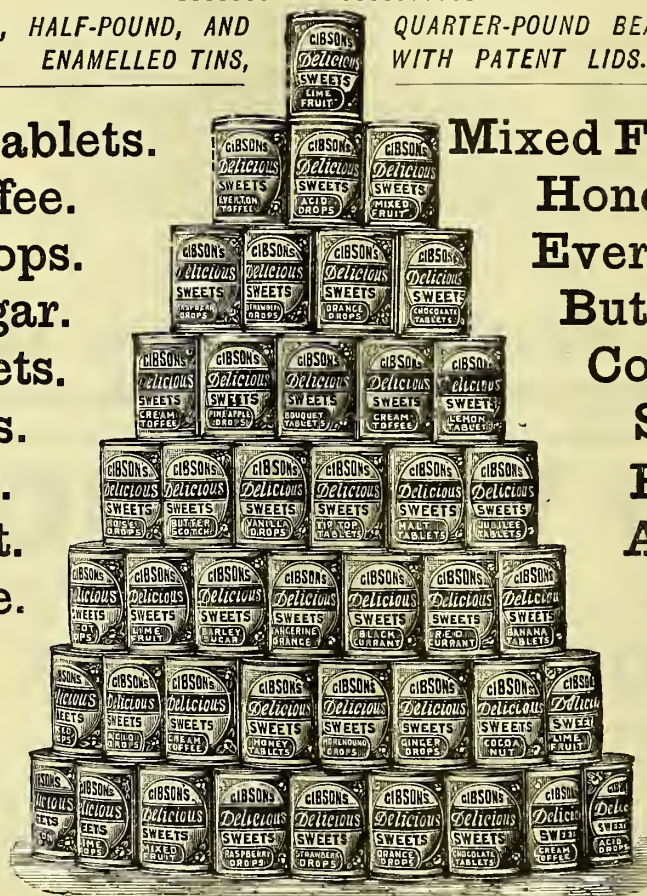
SPECIAL NEW LINE IN GIBSON'S CELEBRATED SWEETS.

ONE POUND, HALF-POUND, AND
ENAMELLED TINS,

QUARTER-POUND BEAUTIFULLY
WITH PATENT LIDS.

Bouquet Tablets.
Cream Toffee.
Lemon Drops.
Barley Sugar.
Malt Tablets.
Pear Drops.
Mint Rock.
Lime Fruit.
Pine Apple.
Raspberry.
Damson.
Ginger.
Musk.

&c., &c.



Mixed Fruit Drops.
Honey Tablets.
Everton Toffee.
Butter Scotch.
Cough Drops.
Strawberry.
Horehound.
Acid Drops.
Greengage.
Chocolate.
Orange.
Cherry.
Rose.

&c., &c.

For many years these goods have been shipped abroad only in bottles; now the firm have decided to pack them in 1-lb., $\frac{1}{2}$ -lb., and $\frac{1}{4}$ -lb. tins at 7/6, 4/6, and 2/9 per dozen respectively, to the Retail trade, with usual discount, special terms being made with Wholesale buyers. Messrs. GIBSON & SONS believe by offering their **WORLD-RENOVED BOILED SUGARS** in portable, unbreakable packages, beautifully labelled for Counter show, they will not only enormously increase their own business, but supply a long-felt want to buyers abroad, and remove at once the only obstacle standing in the way of everybody being able to stock these goods without the slightest fear of sustaining any personal loss.

Indents may be filled and sent direct to the Works, MANCHESTER, to the Firm's
LONDON WAREHOUSE—

1 GLASSHOUSE YARD, ALDERSGATE STREET,

Or to any LONDON SHIPPERS.

S. MAW, SON & THOMPSON'S CHEST PROTECTORS AND VESTS

For Shielding the Lungs.



FIG. 3.
Double, for the Chest and Back.

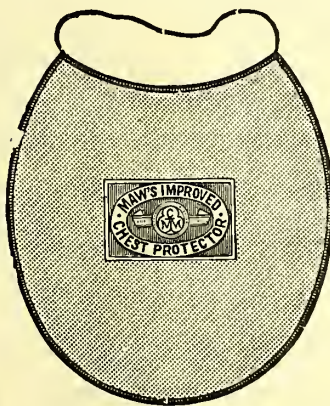


FIG. 4.
Single, Chest Protector.



FIG. 5.
Vest, a Shield for the Lungs.

CHAMOIS AND FLANNEL (Plain or Perforated.)

				No. 1	No. 2	No. 3	No. 4	No. 5
Fig. 3.	Double	...	per doz.	19/	25/	31/	38/	46/
Fig. 4.	Single	...	"	8/9	11/	13/	15/	19/
Fig. 5.	Vests	...	"	26/	33/	40/	49/	57/

FELT.—SCARLET, WHITE,

NATURAL UNDYED WOOL, OR ASSORTED.

				No. 1	No. 2	No. 3	No. 4	No. 5
Fig. 3.	Double, best...	...	per doz.	16/	22/	27/	32/	44/
	Ditto, second	...	"	14/	18/	23/	28/	37/
Fig. 4.	Single, best ...	...	"	7/6	9/	10/6	14/	19/
	Ditto, second	...	"	6/	7/6	9/	11/	16/
Fig. 5.	Vests ...	...	"	17/	22/	27/	33/	40/

S. MAW, SON & THOMPSON, LONDON.

“**Lanoline**”

TRADE MARK

Preparations.

“Lanoline” (*Liebreich*).

A preparation of the purified cholesterin fat of lamb's wool. Does not decompose or become rancid, and therefore forms the very finest non-irritating ointment basis. Supplied as hitherto of unequalled purity, and free from odour and acidity, at old prices. (A wool-fat of high quality, guaranteed absolutely odourless, is now issued as an inexpensive basis for pharmaceutical preparations under the name of ADEPS LANÆ, B.J.D., in 1-lb. and 7-lb. tins at 11d. per lb. for the hydrous, and 1s. 2d. per lb. for the anhydrous, variety.)

Toilet “Lanoline”

Is similar to the natural fat of the human skin and therefore forms an effective soothing and protective application for roughness, redness, chaps, abrasions, cuts, burns, eruptions and all forms of sensitive skin. Supplied in collapsable tubes with new artistic label at 4s. 6d. and 9s. per dozen.

“Lanoline” Toilet Soap (Perfectly Neutral.)

Is super-fatted with “Lanoline,” and therefore not only cleanses, but also nourishes, imparts suppleness, and protects the most sensitive skin. Perfectly suited for infants. Now supplied in new wrapper and improved shape at 4s. 6d. and 8s. per dozen, also in boxes each containing three 6d. tablets.

Burroughs Wellcome & Co., Snow Hill Buildings, LONDON.

*Australasian Address:—*SYDNEY, N.S.W.

Cable and Telegraphic Address:—“BURCOME LONDON.”

Reliable Products of Scientific Pharmacy.

RED GUM "TABLOIDS" (B., W. & CO.).

Red Gum, an exudation from the Australian *Eucalyptus Rostrata*, is a mild styptic and antiseptic, and an excellent local and general astringent. When a Red Gum "Tabloid" is allowed to dissolve in the mouth the continuous action of the drug on the mucous surfaces of the throat is fully secured. Great care has been exercised so to adjust the relative proportions of the ingredients, that the full therapeutic effect may be obtained without offending the palate or affecting the appetite.



Supplied in metal boxes of 30 or bottles of 100 "tabloids" at 4s. 6d. and 12s. per dozen.

COMPOUND BROMIDE "TABLOIDS" (B., W. & CO.).

Each "Tabloid" contains—Strontium Bromide, 2 gr.; Sodium Bromide, 2 gr.; Ammonium Bromide, 1 gr.; Sodium Arseniate, 1/60 gr.

In cases where the bromides have to be administered in large doses and regularly it is found that the salts of strontium, sodium and ammonium are less depressing than that of potassium, and that the combination of these three bromides, with a small dose of an arseniate, forms the best method of continuous bromide treatment. In the Compound Bromide "Tabloid" the dose of arseniate of sodium is such as to allow six "tabloids" (that is thirty grains of the combined bromides) to be given in one dose when necessary.

Compound Bromide "Tabloids" are supplied in bottles of 100 "tabloids" at 16s. per dozen bottles.

COMPOUND PHENACETIN "TABLOIDS" (B., W. & CO.).

"The investigations of the Therapeutic Committee of the British Medical Association conclusively proved that phenacetin is one of the safest antipyretics, and physicians find that in small doses it succeeds when others fail. But even small doses sometimes depress the heart greatly, hence the introduction by Messrs. Burroughs, Wellcome & Co. of a compound phenacetin 'tabloid' containing 4 grains of phenacetin and 1 grain of caffeine is appropriate."—*The Chemist and Druggist*, January 9th, 1897.

Compound Phenacetin "Tabloids" are supplied in bottles of 25 and 100, at 10s. and 27s. per dozen bottles.

CASCARA SAGRADA AND BELLADONNA "TABLOIDS" (B., W. & CO.).

A valuable combination containing intestinal stimulant, tonic and laxative ingredients, the formula being—Cascara Sagrada Extract, 2 gr.; Nux Vomica Extract, 1/4 gr.; Belladonna Extract, 1/3 gr.; Capsicine, 1/5 gr.

The *Medical Press*, December 16th, says: "The 'tabloids' being sugar-coated, constitute a very agreeable form of exhibiting the combination."

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The Lancet, in an appreciative notice of this preparation, says:—"On account of its remarkable velvety smoothness, it should possess a unique value as a dusting powder in the treatment of cutaneous diseases, &c., and for allaying irritation. We have not examined a more unctuous earth."

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1/4 gr. each, it provides the maximum amount of sweetening power in the smallest possible space. A small bottle, containing 100 or 200 "tabloids," can be carried in the vest pocket without the slightest inconvenience, and thus the patient who must avoid sugar can have a delicately flavoured, harmless sweetening agent always handy, when at business, or when travelling at home or abroad.

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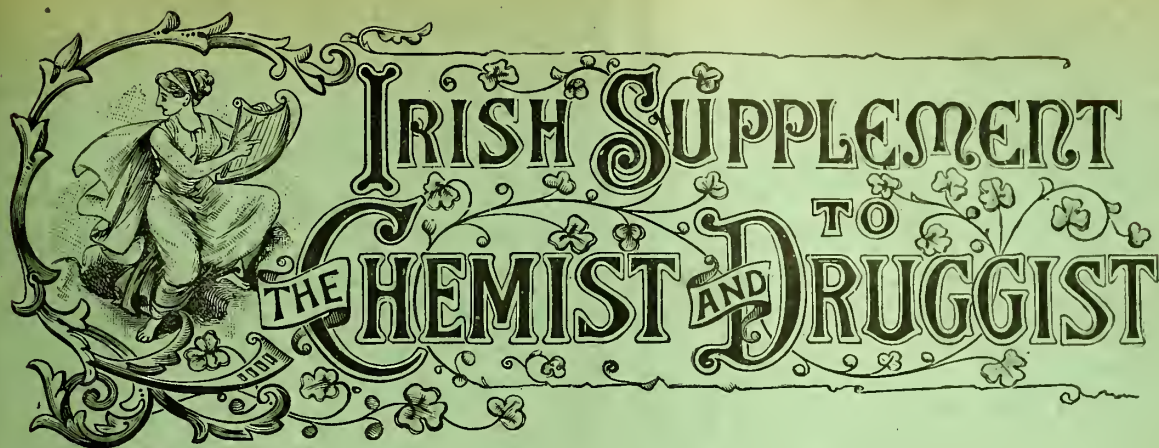
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IRISH SUPPLEMENT TO THE CHEMIST AND DRUGGIST

No. 2.

SATURDAY, FEBRUARY 6, 1897.

42 CANNON STREET, LONDON,
February 4, 1897.

THOSE Irish pharmacists who responded to our invitation of last month, by subscribing, have had a fair proportion of value for their money already. The Winter Issue of THE CHEMIST AND DRUGGIST, which appeared last week, was, without any cavil, one of the most wonderful examples of trade-journalism ever produced. With advertisements and supplements it weighed nearly 4 lbs. It contained a large number of superbly-executed insets and illustrated price-lists of druggists' goods, forming in themselves a collection of trade-information of inestimable value. It contained eighty-two pages of literary matter, illustrated with over a

at the Imperial Institute; an article on Company Pharmacy, with portraits of the managers of the Boot's Pure Drug Company, Day's Southern Drug Company, Parke's Drug Stores, and the Sussex Drug Company; sketches of some notable pharmacies, including two of Messrs. Grattan & Co., in Belfast; some descriptions of pharmacy in Johannesburg, in Paraguay, in Mexico, in Denmark, and elsewhere; an interview with the author of the popular book "Made in Germany" on his present views on the subject of German competition, and another interview with Mr. David Howard on the same subject; suggestions for the manufacture of medicated wine-essences; a description of the Central Pharmacy of the Paris Hospitals; formulæ for



MR. W. F. WELLS, JUN.,
President of the Pharmaceutical Society
of Ireland.



SIR JAMES H. HASLETT, M.P.,
President of the Chemists' and Druggists' Society
of Ireland.



MR. W. MACCARTHY,
President of the Pharmaceutical Chemists' and
Apothecaries' Assistants' Association of Ireland.

hundred engravings. Among these were excellent portraits of a large number of "Pharmaceutical Presidents." We reproduce from this section the three Irish Presidents which appeared in the group. Unfortunately, Mr. Pratt, the President of the Ulster Pharmaceutical Association, was not able to let us have a photograph in time, or his portrait would have appeared with the others.

Among the other subjects of interest dealt with in the Winter Issue, illustrated descriptions of the Davy-Faraday Laboratory at the Royal Institution, and of the Research Laboratories

dispensers, and many other special articles, besides all the news of the week.

We are sorry to say that this Winter Issue of THE CHEMIST AND DRUGGIST cannot now be supplied, and new subscribers must now commence their year with the first issue of February (to expire with the last issue of January 1898). The DIARY for 1898 (to be published next November) will be included in that supply.

A few copies of the DIARY for 1897 are still available, and can be had by subscribers for 2s. 6d., or by non-

subscribers for 3s. 6d. carriage free. That DIARY contains a Dispenser's Formulary of very special value, and a vast amount of reference matter of particular service to everybody in the trade.

An Episode of Medicine-contracting.

AT the Longford Quarter Sessions, on January 26, before Judge Curran,

Mr. Samuel Wilson, J.P., chemist, Longford, sued the Guardians of Longford Union for 13l. 8s. 10d., the price of goods sold and delivered.

Mr. Delany said the Longford Guardians have a medicine-contractor who lives in Sligo, and it has sometimes been found impossible by the doctors, who are struggling against a great many difficulties to discharge their duties to the poor of the Union, to have the medicine they required when wanted. Certain circumstances occurred, and on each of these occasions Dr. Cochrane requisitioned the master to procure for him, instantly, certain medicines wherever he could get them, and these were obtained from Mr. Wilson, of Longford. Mr. Wilson, from December, 1895, to January of this year, supplied several things, which were given in his bill to the Guardians. Mr. Wilson became a magistrate; and, in course of time, a Guardian of Longford Union. The instant this bill went in, Mr. Wilson, who had supplied these articles to preserve the lives of the poor people, who were trusting to the mercies of the men who were supposed to look after their interests, was told he would not be paid, but that he might be processed for 100l.! Up to the time in September when Mr. Wilson was not a Guardian the ordinary prices were put down, but since then he had only charged the actual cost price for these things that he was obliged to supply at a moment's notice, and when the contractor could not be communicated with. He would call Dr. Cochrane, who is medical officer in Longford workhouse, and the doctor would tell his Honour the enormous difficulties that beset his path whenever any attempt was made by him to help the poor out of a great difficulty. He would tell him that in all these cases, when the medicine was supplied, it was absolutely necessary to save life, and to make up for the antiquated and behind-time opinions of the Longford Guardians. (Laughter.)

Mr. Samuel Wilson, J.P., was sworn. He deposed to having furnished a bill of particulars.

His Honour: Who is the ordinary contractor?

Mr. Delany: Mr. White, of Sligo. Your Honour will hear from the doctor a tale of woe that will astonish you, about the state of savagery in this country. (Laughter.)

Witness went on to state that up to September he supplied the medicine at ordinary prices, but from September he supplied at cost price.

His Honour: What difference does that make in the bill?

Witness: 3l. 9s., I think. I have no profit on it.

Mr. Kenny asked what had that to do with the case?

Mr. Delany: I am trying to penetrate the stupidity of these people. (Laughter.)

Mr. Kenny remarked that Mr. Wilson was falling actually under the threats of the Guardians.

Mr. Wilson: Oh, I will get over it. (Laughter.)

To Mr. Delany: I supplied medicines on occasions before, and the Guardians paid without a murmur.

Mr. Kenny said the process was only served on Monday, the last day for service, and so late that it was only on the usual anticipation of Mr. McCann that he was able to inform the Guardians that an action probably would come on. The matter could not be considered by the Guardians.

Mr. Delany remarked that it was considered; the Guardians wanted medicine themselves. (Laughter.)

Mr. Kenny: You are getting very unmannerly.

Mr. Delany: Oh, I beg your pardon. (Laughter.)

Mr. Kenny: So the Guardians left it entirely in the hands of Mr. McCann and myself. Mr. McCann wrote and asked me what would be done about the matter. I wrote back that, having regard to the circumstances of the case, that this being a claim for medicines by a party who was not a contractor, on an emergency, the Guardians were more or less bound to resist it.

His Honour: How much more and how much less?

Mr. Kenny: They are bound to resist it. Of course, if Dr.

Cochrane satisfies you such emergencies arose as to justify him in giving these orders, then that puts an end to the case.

His Honour: Surely, without putting the ratepayers to the cost of a process and decree, the Guardians could have satisfied themselves by asking Dr. Cochrane?

Mr. Kenny: Well, you know, the guardians have confidence in your Honour.

Mr. Delany: And such an absence of confidence in the doctor, I suppose. (Laughter.)

Mr. Kenny: That is about it. (More laughter.)

Mr. Delany said it was all humbug to say the Guardians did not know about the process, and he produced a copy of the *Roscommon Herald* to prove his statement. It contained copy of a letter from the Local Government Board in which they said it appeared Mr. Wilson had infringed the law by supplying medicines while an *ex officio* Guardian.

Mr. Delany: Then comes a discussion as to whether they could feel Mr. Wilson for 100l. instead of paying him for his medicines. (Laughter.)

Mr. Kenny said the Guardians had gained something by the discussion—they had frightened Mr. Wilson into reducing his bill by two or three pounds.

Mr. Delany: We will pull that up when we have his Honour giving two guineas apiece to Dr. Yorke and Dr. Cochrane. (Laughter.)

Dr. Cochrane, replying to Mr. Delany, deposed he was medical officer of the workhouse. In discharge of his duties he found it frequently very necessary to get medicine in a hurry, and had it ordered, through the master, from Mr. Wilson, at any time he considered an emergency arose. He had seen the medicines supplied by Mr. Wilson, some of them in very pressing cases, and others in cases not so pressing, but which, in his mind, were cases of emergency all the same. The requisitions for medicine were so hedged by red tape and delay so enormous that he was always left in a state of emergency as far as his patients go. I have first to see the Clerk. He has to hunt up a requisition form, which may be signed next day by the Guardians, or whenever they meet. It may go to Sligo, and it is often three weeks before I got the medicine at all.

Mr. Delany: Is it ever less at all?—I don't know.

His Honour: Who receives the annual supply? Is it kept in the workhouse?

Dr. Cochrane: We are supposed by the Local Government Board to prophesy what quantity of medicines will be required for three or four months, and we may use the whole of that.

To Mr. Delany: Some medicines that we got from Mr. Wilson were medicines that could not keep very long.

His Honour: What is the usual course with respect to this supply?—The usual course to be taken is accepting the lowest tender, or probably there might be a majority of friendly Guardians.

Mr. Kenny: That is at the election of doctors. (Laughter.)

Dr. Cochrane: We often have the greatest difficulty in getting medicines, and we are not always sure that it is good when we get it. (Laughter.) In every union the same difficulty arises, but in some large unions a resident apothecary is kept. In other unions they are sensible enough to get the medicines from a chemist resident in the town, which would save all the difficulty.

Replying to his Honour, witness said the requisition form in use in Longford Union was made in 1848, and they had to take their choice out of it, except they added the modern medicines that were used. Joseph Lister had been born since then, and he had thrown new light on the subject. It was a very great nuisance in the system that the contractor was miles away.

Mr. Delany: And you have to wait for the Board of Guardians?—Oh, the Board of Guardians might not meet at all.

Mr. Delany: And when they do they talk nonsense. (Laughter.)

Cross examined by Mr. Kenny: I was getting things from Mr. Wilson every day nearly.

To his Honour: We are supposed to get in what will do for three months, and the consequence is that, in most unions there is an enormous waste of medicines.

Dr. Cochrane said as a matter of fact Dr. Yorke found that the medicines were unsatisfactory, and they were sent to the county analyst for analysis. The report of the analyst was that all the medicines were bad. That report was sent to the Local Government Board, and they directed the Guardians to

dismiss the contractor, who was the present man. He came to Longford, and had a palaver with the Guardians, and they ignored the Local Government Board, and kept the contractor in face of the Local Government Board's direction. I think, in so doing, if I never ordered another article from him, the Local Government Board would support me.

Mr. Kenny: Have you got the analysis?—I have.

Well, were the medicines defective?—They were not medicines at all. (Laughter.)

Mr. Delany said carbolic acid was ordered, and car-grease or something else was supplied.

His Honour asked Dr. Cochrane to whom would he account.

Dr. Cochrane: The Local Government Board will decide that.

Mr. Delany: We will have a sworn inquiry.

Dr. Cochrane: I want to get them into a sworn inquiry. The Local Government Board have to deal with me.

Mr. James Farrell, master of the workhouse, was examined.

Dr. Yorke, dispensary doctor, gave evidence showing the inconvenience caused by the contractor being in Sligo.

Mr. Delany: It was you found out the defect in the medicine?—Oh, it was not medicine at all. (Laughter.)

Mr. Delany: Car-grease, I believe. (Loud laughter.)

Mr. Harry McCann gave evidence. He said they could not pay Mr. Wilson without the sanction of the Local Government Board or his Honour. (Laughter.)

Mr. Delany: Did you not on former occasions receive similar bills?—We received a similar bill on one occasion. It was sent to the Local Government Board, and paid with their sanction. We don't mean about his being an *ex officio* at all. If you say pay the bill we will pay it.

His Honour: The Local Government Board were afraid to give their sanction to it.

Mr. Kenny: The only opinion they gave on the matter was that Mr. Wilson should be prosecuted.

Mr. McCann said they had an analysis from Mr. White showing that the medicines were good.

Mr. Kenny: Of course, you don't say Mr. Wilson's were good.

His Honour jocosely said he was sorry to state he had invested in Mr. Wilson's medicines. (Laughter.) In giving his decision he did not think there was the slightest scintilla of a suggestion against either Dr. Cochrane or Mr. Wilson in the transaction. He did not think there was the slightest idea of a conspiracy, as suggested, between the doctor and a rival contractor. He gave a decree for the full amount.

Mr. Delany applied for three guineas witnesses' expenses for the doctors and the master.

His Honour allowed two guineas for the doctors, but refused to give expenses for the master, and he also allowed 2s. expenses for subpoenas.

We are indebted for the above report to the *Roscommon Herald*.

Personal.

Sir Henry Cochrane, chemist, Dublin, has replaced Mr. Edward Breslen as Chairman of the Bray Township Commissioners.

Judge Adams on Bacilli.

Judge Adams is hard on the bacilli and doctors. At Limerick, the other day, he said doctors deserved the greatest credit for the precautions they took, but he thought they were going too far about this question of "death in the pot." (Laughter.) A man cannot take a morsel of anything or sleep anywhere but he is told there are ten million bacilli in his system, and he is told "You will die in great agony about 2 o'clock to-night," which, of course, he will not. (Renewed laughter.) They were perfectly mad on this point. Fortunately, if there were ten million unhealthy bacilli in the human body there were twenty million healthy ones, with the result that a great battle took place, in which the latter won. Some time ago, continued his Honour, a physician came to the witness-table, and on being handed the Bible he opened it with great care and kissed the inside of the volume. He said to the witness, "What did you do that for, doctor?" whereupon the doctor replied, "I am afraid of microbes, bacilli, and micrococci." (Loud laughter.) But he was not afraid of alcohol, for he was blind drunk.

Pharmaceutical Examinations.

PRELIMINARY.

THIS examination was held on Monday, January 4, when the following questions were set by Dr. H. C. Tweedy and Mr. S. Brown, B.A.:—

ENGLISH GRAMMAR AND COMPOSITION.

1. Give examples of participial forms being used for the infinitive mood.
2. How are numeral adjectives divided? Give examples.
3. State and illustrate the rule for the use of the subjunctive mood.
4. Give examples (not less than four) of nouns having double plurals, each having a different meaning.
5. Enumerate the indefinite pronouns, so called; and show that, strictly speaking, they are not true pronouns.
6. Write a short essay on one of the following subjects, viz.:—(a) An Earthquake. (b) The Taxation of Ireland. (c) The results of the Introduction of Money.

LATIN.

1. Translate one of the following passages:—

I.

Nec non et vario noctem sermone trahebat
Infelix Dido, longuèque bibeat amorem,
Multa super Priamo rogatans, super Hectore multa,
Nunc, quibus Aurorae venisset filius armis,
Nunc, quales Diomedis equi, nunc, quantus Achilles,
"Immo age, et a prima, dic, hospes, origine nobis
Insidias," inquit, "Danaum casusque thorum
Erroresque tuos: nam te iam septima portat
Omnibus errantem terris et fluctibus aestas."

II.

Tandem vulneribus defessit, et pedem referri et, quod mons suberat circiter mille passuum, eo se recipere coeperunt. Capto monte et succedentibus nostris, Boii et Tulingi, qui hominum millibus circiter XV agmen hostium claudabant et novissimis praesidio erant, ex itinere nostros latere aperto aggressi circumvenire: et id conspicati Helvetii, qui in montem sese receperant, rursus instare et proelium reintegrare coeperunt. Romani conversa signa bipartito intulerunt: prima ac secunda acies, ut victis ac submotis resisteret; tertia ut venientes exciperet.

Parse all words in italics in the passage you select for translation.

2. Give the future indicative (active), the imperative (active), the supine, the gerundive, and the future infinitive passive of each of the following verbs:—ferre, dare, edere, ire.

3. Explain what is meant by the "*Oratio obliqua*."

ARITHMETIC.

1. Subtract $\frac{7}{8}$ of $\frac{3}{4}$ of $6\frac{2}{3}$ from $\frac{5}{6}$ of $2\frac{3}{4}$ of $4\frac{1}{2}$.
2. What will be the cost of 2563 casks of sugar at 27. 11s. 9d. per cask?
3. Add together—345, 2'0096, '616, 7'48, and '002, and divide the result by 5807.
4. What is the whole weight of 17 waggon-loads, each containing 3 tons 13 cwt. 3 qrs. 13 lbs.?
5. Which is the greater, 20 kilometres or 11 English miles? Express the difference in yards.
6. How many parcels, each weighing $3\frac{1}{2}$ oz. avoirdupois, can be made out of 22 kilogrammes?

ALGEBRA.

1. Find the G.C.M. of $a^4 - x^4$, $a^4 + 2a^2x^2 + x^4$, and $3a^2 + 3x^2$.
2. Multiply $3a^2 - 2ab + 4b^2$ by $a - 2ab + 3b$.
3. Simplify $\frac{a-b}{b} + \frac{2a}{a-b} - \frac{a^2+a^2b}{a^2b-b^2}$.
4. Solve $\frac{3x-2}{5} + \frac{4x}{9} = 20 - \frac{5x-1}{4}$.
5. Divide $5x^2 - \frac{1}{2}$ by $x + \frac{1}{2}$.

EUCLID.

1. Write out four of Euclid's definitions.
[Not more than TWO of the following propositions to be attempted.]
2. If one side of a triangle be produced, the exterior angle shall be greater than either of the two interior opposite angles.
3. If from the ends of the side of a triangle there be drawn two straight lines to a point within the triangle, these shall be less than the other two sides of the triangle, but shall contain a greater angle.
4. Straight lines which are parallel to the same straight line are parallel to each other.

CHEMISTRY.

1. Explain the terms—*anhydride*, *element*, *base*, *peroxide*, *acid*, *equivalent*.

2. Describe the properties of sulphur. What gas is formed when sulphur burns in air?
3. Mention the most important differences between a chemical compound and a mere mechanical mixture.
4. What substances are represented by the following formulæ:— NaHSO_4 , NH_4NO_3 , BaO , NO , H_2O_2 , $\text{Ca}(\text{HO})_2$, HI , K_2SO_4 , C_2H_4 , NH_4Cl ?
5. How is marsh gas prepared? Name its most important properties.

THE RESULT.

Twenty-seven candidates entered for the examination. Twelve failed, and the following fifteen passed:—

- | | | |
|------------------|--------------------|---------|
| 1. J. Sullivan | 8. J. W. Fenton | } equal |
| 2. J. O'Donoghue | 9. P. F. Smith | |
| 3. A. N. Rogers | 10. J. H. Corken | |
| 4. P. J. Fleming | 11. D. Chambers | |
| 5. F. McCaughey | 12. C. B. Johnston | } equal |
| 6. J. Marks | 13. J. Guinan | |
| 7. T. Lynch | 14. C. E. Warner | |
| | 15. E. E. Wolfe | |

The names are arranged in order of merit.

LICENCE EXAMINATION.

The Board of Examiners met at 67 Lower Mount Street, Dublin, last month, when fifteen candidates were examined; nine failed, and the following six passed:—

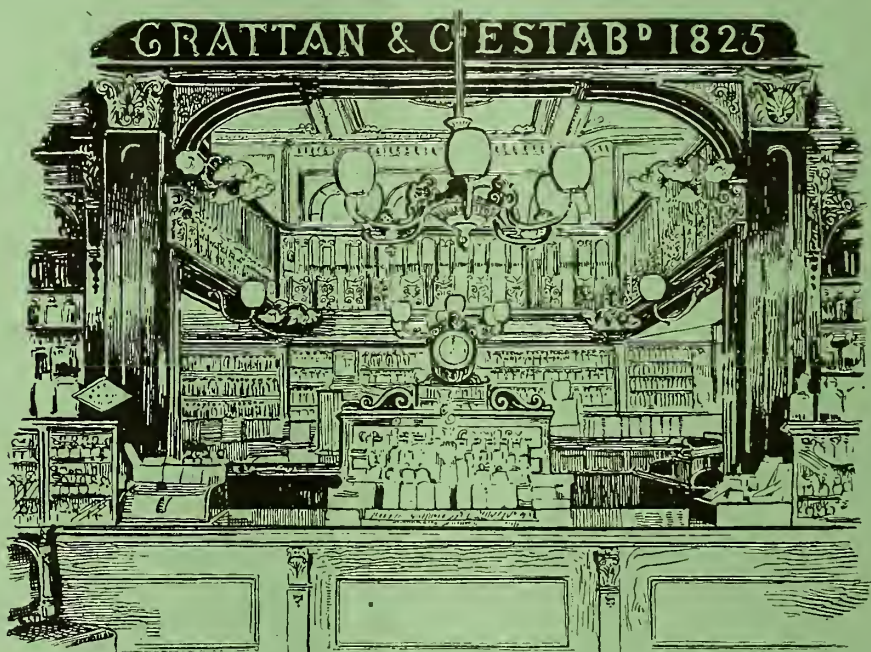
- | | |
|---------------|---------------|
| W. Yeats | W. H. Hopkins |
| J. F. O'Neill | J. W. Carr |
| G. A. Deans | J. M. Whelan |

REGISTERED DRUGGIST'S EXAMINATION.

Four candidates were examined last month; three failed, and the following passed:—

R. N. Allen

The next examinations will be held in April.



Grattan's.

A PHARMACIST, who was formerly an assistant at Grattan's, and has read the article in our Winter Issue, has been good enough to send us some notes on it, from which we extract the following:—"The pharmacy is one of the best-arranged and most methodically-managed pharmacies I have seen or heard of. In my day the late Mr. Richard Pring

was principal, and he personally supervised the business in every department, although he had managers for each under him. He was a man of genial temperament and kindly disposition, of high character, a churchwarden, and very much respected by all who knew him. He was a strict disciplinarian, and no one under him was permitted to take liberties. Mr. Yoxall was the resident manager, and is so still,



I believe. The dispensing department is still managed by

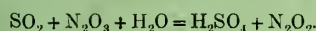
Mr. Thomas Green, an English pharmaceutical chemist, who was there in my day (the late seventies). He is one of the smartest and most competent pharmacists that I know. A short time under him is a liberal education in manner and method. The organisation of the compounding-department was carried to the highest degree of perfection. The dispensing of every prescription was checked by Mr. Green personally, and he passed nothing that was not as nearly perfect as possible. It was a splendid place for any fellow who wanted thorough experience in high-class dispensing. In those days the firm practically monopolised the dispensing business of Belfast, and even many places in the country in the North of Ireland got a large part of their medicines by post. All the medical men in the town came about the shop. I have often seen five or six medical men in conference on a forenoon at what was called the doctors' desk in the front shop. The firm kept an extensive stock of fine chemicals and chemical apparatus, as well as such things as trusses, catheters, stethoscopes, bandages, splints, and all other things usually kept by surgical-instrument makers.

"The aerated-water business was at that time a good adjunct, and under Mr. White's care has grown to be quite a big and, I believe, a separate thing."

Manufacture of Sulphuric Acid.

MR. W. U. SMITH, M.P.S.I., read a good paper on this subject to the members of the Pharmaceutical Chemists' and Apothecaries' Assistants' Society of Ireland on January 22. The meeting was held at the Pharmaceutical Society's house in Dublin, and we may recall the fact that on that occasion the Secretary (Mr. David O'Sullivan) intimated subscriptions from the following firms:—Messrs. Burroughs, Wellcome & Co., 1*l*. 1*s*.; Evans, Sons & Co., 1*l*. 1*s*.; Wright, Layman & Umney, 1*l*.; Boileau & Boyd, 1*l*.; and Oppenheimer, Sons & Co. (Limited), 10*s*. We have not room for the whole of Mr. Smith's paper in this issue, but we give the more important points of it, as the subject is one which every member of the trade should be, to some extent, familiar with.

Starting with sulphur, either native, or in the form of pyrites (generally the latter), the manufacturer burns it, thereby getting sulphurous acid (SO_2). By acting upon nitre with sulphuric acid he gets nitrogen oxides (mainly N_2O_3). The only other thing needed to make sulphuric acid is water, in the form of steam, for the reaction is something like this—



There are several by-reactions, but the above is the thing kept in view. Mr. Smith explained that the gases SO_2 and N_2O_3 are generated and conducted together into a large room, called a "lead chamber"; the SO_2 combined with an atom of oxygen taken from the nitrogen oxides becoming SO_3 , and this in turn combines with the vapour of water which is being injected into the chamber and becomes H_2SO_4 , and is condensed on the surfaces of the chamber. The acid, which is of a strength between s.g. 1.5 and 1.6, is too weak for commercial purposes, and it is concentrated and purified from nitrous gases by passing it through a series of towers known and Gay-Lussac and Glover towers, and then further concentrated and purified. The process is a continuous one.

The nitrogen oxides on being deprived of an atom of O by the SO_2 immediately replace the lost O by taking another from the air, so that theoretically the one supply of nitrogen oxides would act as a carrier of O for an indefinite amount of SO_2 . Practically this is not so, and the nitrogen oxides have to be supplied in a constant stream along with the other gases. The construction of the burners differs for different kinds of pyrites. The burners used for pyrites poor in sulphur are much deeper than those used for burning richer ore, the reason being that the pyrites, when once properly ignited, burns itself much in the same way as ordinary coal; but not so the poor pyrites, so there has to be a greater depth of burning ore to generate the heat sufficient for perfect self-combustion. Diagrams were exhibited showing the construction and dimensions of the burners. The burners are built of fire-brick laid in fire-clay as closely together as possible. The newest style of burners have iron fronts with the various doors made to shut air-tight, with an adjustable ventilator for the regulating of the supply of air necessary for the proper combustion of the sulphur, &c. The fire-bars for supporting the burning ore are about $1\frac{1}{2}$ inch square, and are supported on three bearing-bars—one at the back of the burner, one across the middle, and one across the front. Three journals or rounded parts are turned on the fire-bars just where they rest on corresponding hollows in the bearing-bars. The fire-bars project a short distance in front so as to allow of a long-handled key being put on at the end of each bar, and the bars twisted backwards and forwards; this enables the burned and exhausted ore to be crushed between the bars and allowed to fall into the ashpit, and make room for a fresh charge of pyrites.

The burners are built in sets of ten to twenty, placed back to back, and all communicating with a common flue, at the end of which are placed the nitre pots. The quantity of pyrites to be burned in rotation by each kiln is divided and added at set intervals, and by this method the flow of gas is kept regular. The nitre pots are also charged in rotation. The pyrites is broken into pieces of about one and a half cubic inch each, by machinery as well as by hand. The dust is utilised by being

moistened with water, made into balls of a suitable size, then baked, and finally burned with the pyrites. The burning is started by a layer of glowing cinders and coke, upon which the pyrites is placed.

The construction of a sulphur burner was next described. Sulphur is either burned directly on the floor (the latter being made a fire-brick like the rest of the furnace, but it has no bars like the pyrites burner), or is burned on an iron tray having the edges turned up for an inch or so all round except at the side nearest the furnace-door, where the flange is sloped towards the door to allow the exhausted sulphur to be pulled out of the iron plate and replaced by fresh sulphur. The nitre-pot is placed immediately behind the sulphur-tray and inclined slightly to the front, so that the hot fumes may help the action between the H_2SO_4 and nitre; the iron tray is about 8 feet in length by 4 feet in width, and the surface of the burner is somewhat larger than the tray to prevent sublimation. Four kilns with trays of the size mentioned could burn 1 ton of brimstone in twenty-four hours.

Mr. Smith spoke at considerable length on the merits of this kiln, after which he dwelt upon the construction and purposes of the leaden chambers where the gases are converted into acid. These chambers, he said, vary greatly in size and shape, the most common shape being oblong or a double cube. They are constructed of sheet lead, supported on a stout wooden frame, which is raised some distance from the ground on iron, brick, or stone pillars.

The gases are conducted from the burners through a sufficient length of flue to somewhat cool them. They are admitted into the first chamber a little above the floor, and a jet of steam, or steam and water mixed, in the form of spray, admitted higher up. Any gases not converted into H_2SO_4 in the first chamber are conducted through another pipe, placed high up at the far end of the chamber, into the second chamber, where they have another opportunity of becoming condensed, and then through another pipe into a third chamber, where more steam is admitted. From this chamber, supposing it to be the last, the gases, now nitrous oxides, are conveyed to the Gay-Lussac tower, and there absorbed by strong H_2SO_4 . The resulting nitrous vitriol is next conducted to the Glover tower, through which it is passed, and the nitrous oxides are given off and utilised.

The Gay-Lussac absorbing-tower is a square column, narrow and high, built of stout timber and lined with sheet-lead, protected inside by a course of fire-tiles set in fire-clay, and packed with the hardest coke. The coke rests on firebricks set on edge at some little distance apart. The nitrous gases enter the bottom of the tower, and passing upwards meet a spray of strong acid, which is supplied from the top of the tower and distributed evenly over the surface of the coke by a special apparatus. The acid trickling down among the coke absorbs the nitrous gases passing upwards, and is collected at the bottom of the tower and forced to the top of a Glover tower.

In its construction the Glover tower is somewhat similar to the Gay-Lussac, and is about 30 feet in height. This tower is packed with flints and coke. At the top are two tanks, one containing the nitrous vitriol and the other containing chamber acid requiring concentration. This tower is placed between the kilns and the leaden chamber, and intercepts the SO_2 gas from the burners, which, entering at the bottom and passing up the tower, meets a stream of mixed chamber acid and nitro-sulphuric acid. The great heat of the SO_2 gas liberates the N_2O_3 from the acid, and at the same time concentrates the weak acid.

ULSTER PHARMACEUTICAL ASSOCIATION.

A meeting of this Association was held at Belfast on February 2, Mr. W. Prott presiding. After reading the minutes of the last meeting it was unanimously agreed, on the motion of Mr. J. C. C. Payne, J.P., seconded by Mr. Lyons, to adjourn the meeting, in consequence of the recent death of Mrs. G. Waugh, until the third Thursday of the month, when a "smoker" will be held, at which Mr. G. Camlin will read his paper, entitled "A Chemist's Life," and Mr. G. Deans will relate his experience of the "Final Examination." The Hon. Secretary was directed to write a letter of condolence with Mr. G. Waugh, M.P.S.I., in his great bereavement in the loss of his young wife.

Business Changes.

Mr. G. Tiernan, druggist, has ceased to carry on business at Meath Street, Dublin.

Mr. Jos. Edgar, late Edgar & Co., Dromore, has bought a drug-business at Ramsay, I.M.

A new pharmacy has been opened in Antrim Road, Belfast, by R. Barron, L.P.S.I.

Messrs. R. L. Gore, late of Lower Camden Street, Dublin, have opened a drug-store in Moore Street, North City.

Mr. W. P. Wheeler Allen, L.P.S.I., late of Sarsfield Quay, Dublin, has opened a medical hall at Upper Ormond Quay, an adjoining thoroughfare.

Messrs. Twinem Brothers, Dublin, have recently acquired the drug and chemical concern of Mr. John Darcy, Lower Clanbrassil Street and South Circular Road, Portobello.

The business of W. Collins & Co., wholesale druggists, Belfast, has been bought by Messrs. J. Clarke & Co. (Limited). Messrs. Collins & Co. had an extensive business in supplying Poor-law Unions, &c., which Messrs. Clarke will continue.

It is rumoured in Belfast that several well-known drug and chemical houses are about to be combined with a wholesale drug-business in a limited-liability company. The names of the firms concerned have not yet been made public.

Messrs. Bonnar, Henderson & Woodside, wholesale and retail chemists, Ballymena, have bought the business and goodwill of James Beattie, soap manufacturer, Ballymena, as well as his "Beattie's ringworm wash for cattle," and other proprietaries.

Coming Events.

SUBJOINED are notes of various events connected with pharmacy arranged to be held during February. Notes of similar events to be held during March, or of forthcoming social events, will be inserted in this section if communicated to the Editor not later than Wednesday, February 24.

PHARMACEUTICAL CHEMISTS' AND APOTHECARIES' ASSISTANTS' ASSOCIATION, IRELAND.

February 19.—Meeting in the Pharmaceutical Society's House, 87 Lower Mount Street, Dublin, at 8.30 P.M. Mr. John Smith, M.P.S.I., will deliver a lecture on "Plant-fertilisation."

PHARMACEUTICAL SCHOOL OF CHEMISTRY, 67 LOWER MOUNT STREET, DUBLIN.

Students desiring to enter for the July or October Irish Pharmaceutical Licence examinations, and who have not yet commenced the course of practical chemistry, are recommended to join the class not later than Monday, February 15.

CHEMISTS' AND DRUGGISTS' SOCIETY.

The annual meeting of the Chemists' and Druggists' Society of Ireland (North Branch) will be held in the Society's rooms at 10 Royal Avenue, Belfast, on Monday evening, February 15. Business: reports of the Treasurer and Secretary, election of committee and office-bearers.

THE COMING BALL.

The sale of tickets for the Assistants' Ball on March 9 is proceeding rapidly and not fewer than 150 couples are expected to be present. The ball will be held in the Pillar Room, Rotunda. Tickets are to be had from the committee, or at almost every pharmacy in the city and county.

Railway Rates.

It costs more to send goods from Dublin to the County Armagh than to send the same goods from Dublin to Belfast in the first instance, and then send them back from Belfast to the County Armagh. This is the curious statement made by the agitators for a revision of railway rates.

Matters of Business.

(O)UR baby grows apace; thanks mainly to the support which several enterprising wholesale firms are giving it. We made a good start last month, and do better now. Future progress greatly depends upon the Irish drug-trade. We want to make this Supplement a feature which the trade will look forward to every month, as much in regard to "What to buy" as "What is new." We hope our friends will do their share by considering the claims of the firms who are supporting us.

If one takes the first turning to the right leaving Dublin or Belfast, one comes to the establishment of Messrs. Evans, Sons & Co., wholesale druggists, Liverpool. None can mistake the place, because it is the biggest of its kind in the country, and there you can get anything in the drug-line from a pill to a barrel of oil, or in sundries from a cork to a complete set of shop-fittings. It always pays to watch Messrs. Evans' advertisements; they are seasonable and a response by the buyer puts him on good terms.

It is unnecessary to ask Mr. Samuel Roberts, the principal of Messrs. May, Roberts & Co., if he is an Irishman. A few seconds in his company reveals the fact. Through his keen perception and untiring energies there has been built up at 9 Clerkenwell Road, London, E.C., a remarkable druggists' sundries business, and it is still growing. In case retailers should think of making a note of this, with a view to keeping some lines for Messrs. May, Roberts & Co.'s traveller when he calls, we explain that the firm employ no travellers—it has been left to an Irishman to show how business can be done without them, and how that is can best be seen by consulting the firm's price-list, which will be sent on application.

By-and-by we shall have an opportunity of saying something about Messrs. Boileau & Boyd's bicentenary. There are few wholesale firms on either side of the Irish Channel of whom that can be said. Messrs. Boileau & Boyd are well placed for supplying heavy goods, as well as pharmaceutical preparations and specialties, for in addition to the usual dry, wet, and sundries departments they have developed business in drysalteries, paints, and oils until it is one of the foremost houses. It is perhaps not generally known that the late Mr. Samuel Boyd was the first to import American petroleum direct into Ireland. This was in 1866, not long after they began to "strike ile" in the United States, and make millions by it. Burning and lubricating oils are a strong point with Boileau & Boyd. When Mr. Samuel Boyd died, three years ago, the firms Boileau & Boyd, Samuel Boyd, and Boyd & Goodwin were amalgamated and formed into a private company with limited liability. Mr. Samuel P. Boyd is the Chairman of the Board of Directors. The company manufacture methylated spirit—indeed, they are the only licensees for that in Ireland.

Messrs. W. Kemp & Son, of Horncastle, Lincs., send us copies of their price-list of drugs and pharmaceutical preparations generally, also of their illustrated catalogue of counter specialties. Both are worth having; and Irish druggists and pharmacists should note that prices for Ireland are the same as for any other part of the United Kingdom. Carriage is paid on 5*l*. worth of goods to Dublin or Belfast, and on 9*l*. worth to any other part of Ireland. This does not apply to crushed linseed, for 1 cwt. is carriage free to the two big cities, and 2 cwt. to any other spot in the island. Crushed linseed is a line which Kemp's do very well; indeed, so reasonably that it is not worth while risking prosecution by stocking the now old-fashioned ground linseed-cake. The firm have an arrangement in regard to empties, which practically means that the buyer does not pay carriage. We were curious to know how Messrs. Kemp manage to keep up the connection with Ireland so well, and we learn that it is all owing to Irish horses. There is a big business in these at Horncastle, where a great horse fair is held, and in consequence railway companies have worked out a smart service and reasonable rates, which the drug-trade can take advantage of.

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VETERINARY COUNTER PRACTICE.

There is probably no development of the drug trade which has so much money in it potentially as the treatment of animals. It is to be an aid to chemists and druggists in providing them with advice regarding the Diseases and treatment of the horse, cattle, sheep, and other animals, that we have had this "Veterinary Counter Practice" compiled; and we think the instances will be few indeed in which it will fail to pay for itself in the first week or two after purchase.

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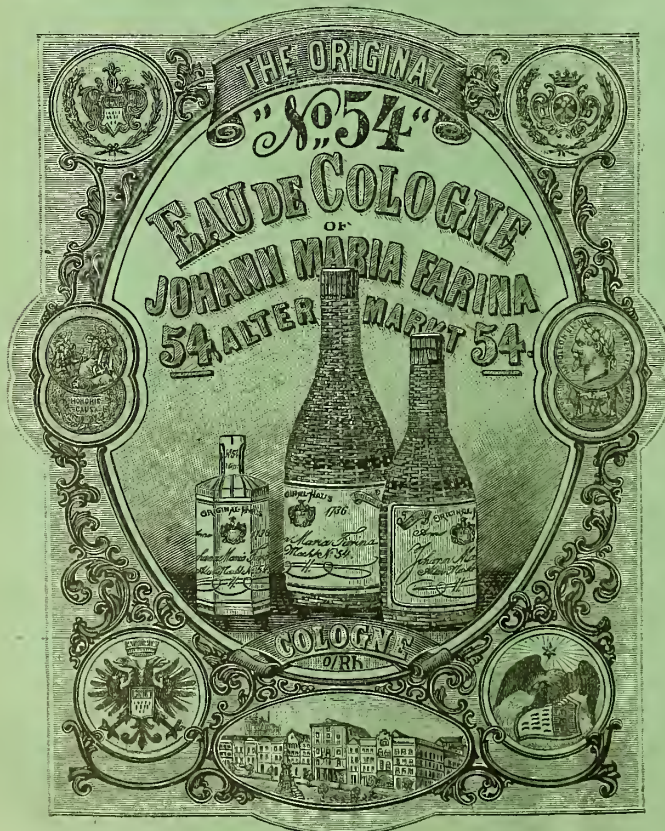
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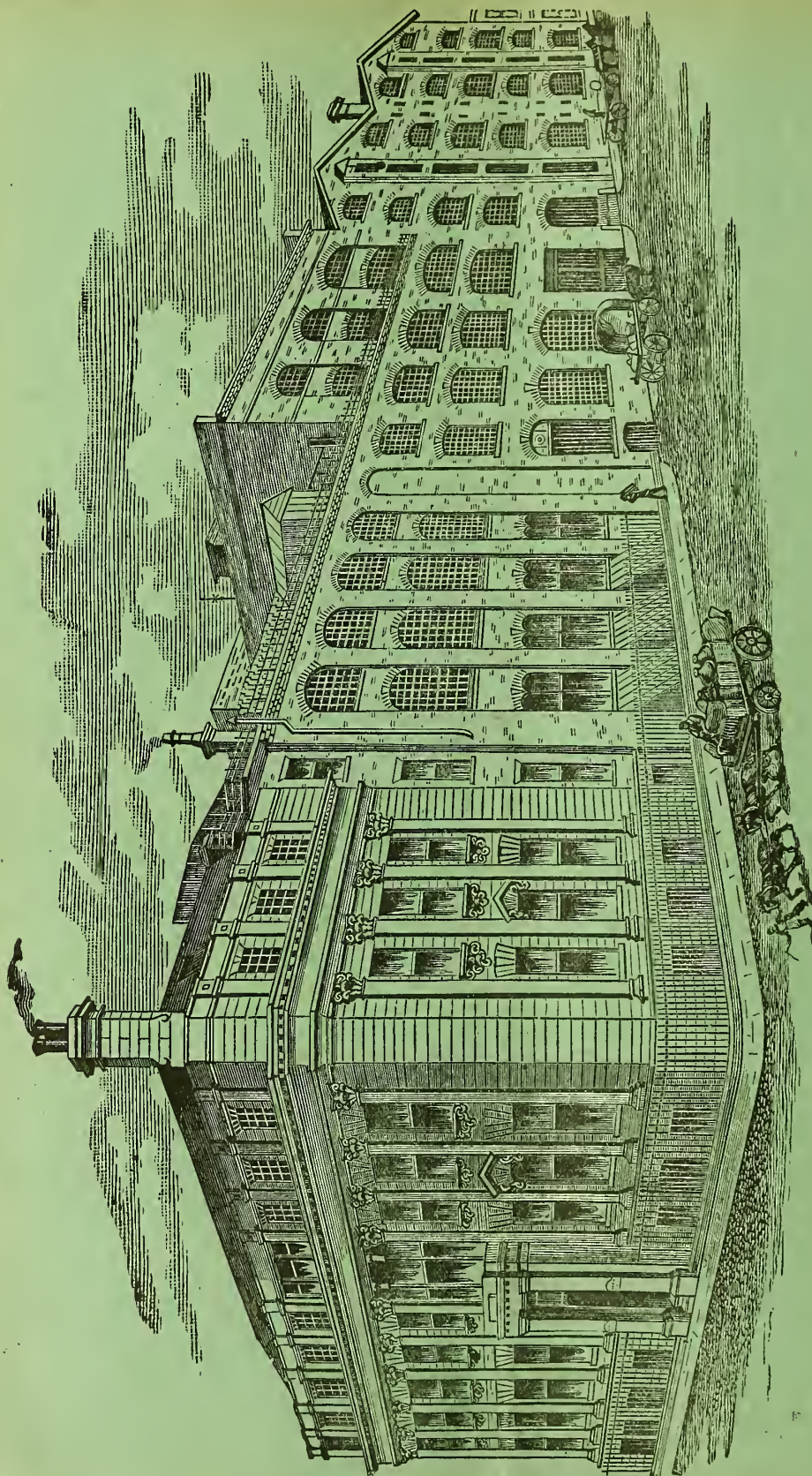
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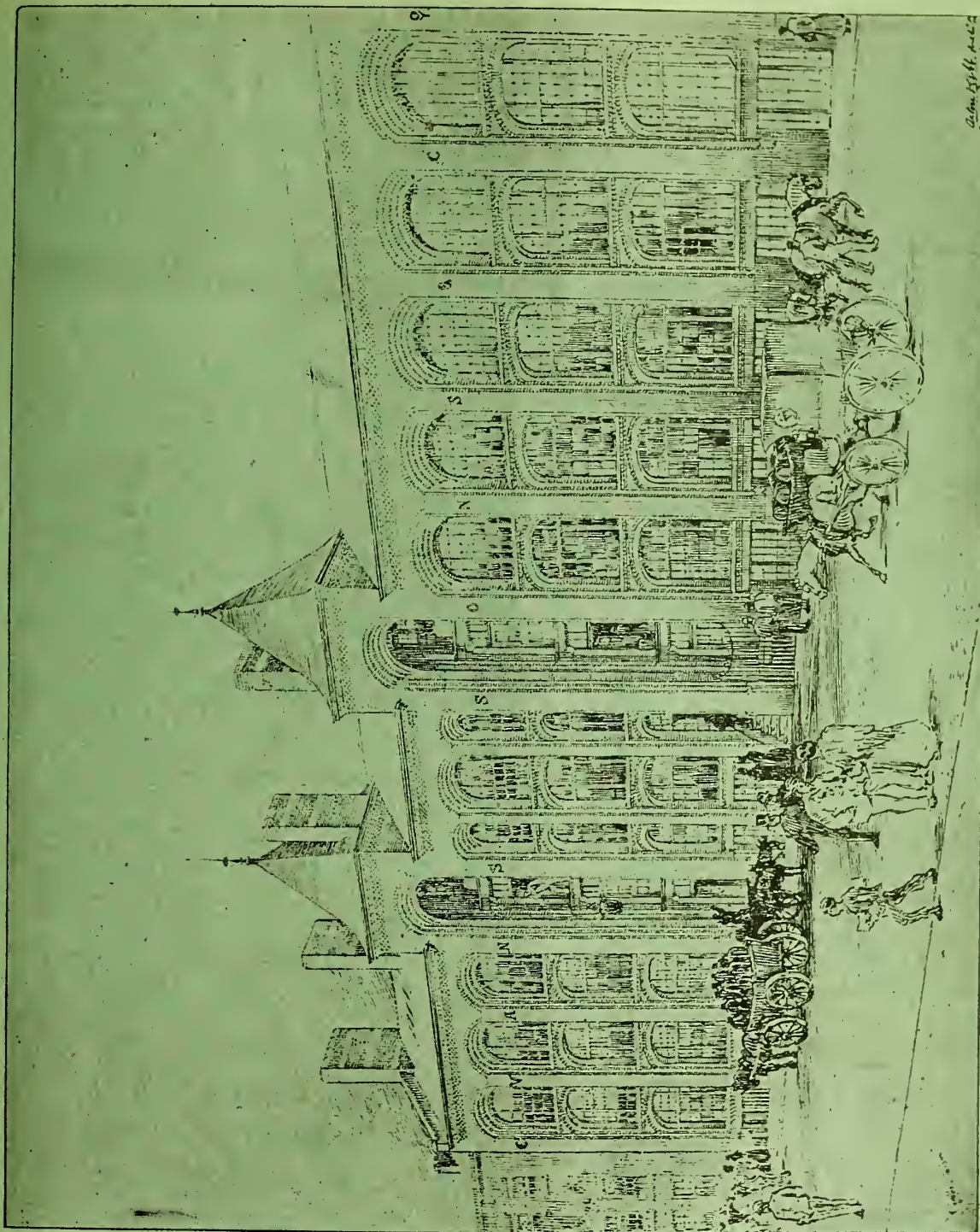
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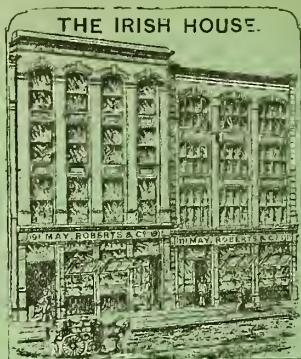
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Pharmaceutical Chemists' and Apothecaries'
Assistants' Association of Ireland.

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No. 2 (1897).

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Postcards (only) to be sent in during the month of February.

One guinea (at least) to be awarded, at the Editor's discretion.

Summary.

SOME alterations in store prices are notified on p. 222.

AN Edinburgh chemist's assistant has been divorced (p. 225).

SOME progress is being made with the Jersey Pharmacy Act (p. 223).

THE American makers of indiarubber-plasters have combined (p. 229).

QUININE has been down to 7½d. per oz. this week; cocaine is also lower (p. 247).

ANOTHER list of trade subscribers to the Indian Famine Fund is printed on p. 224.

THE Leathersellers' Company offer 150l. a year in scholarships for chemical research (p. 223).

THE Register of chemists and druggists increased by eighty-eight only during 1896 (p. 223).

THE names of those who passed the British Preliminary examination last month are given on p. 229.

TWO chemical methods for producing photographs in natural colours have been announced (p. 237).

THE condition of the British drug-trade, as reflected by examination statistics, is not encouraging (p. 238).

ONE chemist's assistant has poisoned himself with prussic acid, and another was in danger of doing so (p. 222).

A FINE sample of ginger-beer containing 10.8 per cent. of proof spirit was the subject of prosecution at Sheffield (p. 223).

Is there a more rapid form of ether vibration than x-rays—a form that will convey thought? Mr. Crookes thinks there may be (p. 238).

THE Pharmaceutical Council had little business to do on Wednesday, except to determine by ballot who should retire in May (p. 228).

AN important observation regarding chilblains by a medical authority is printed on p. 233 as a supplement to last week's article.

MR. HYSLOP read an entertaining paper to the Chemists' Assistants' Association last week on the present position of pharmacy (p. 230).

BELGIAN pharmacists have sent out invitations for an International Pharmaceutical Congress to be held in Brussels next August (p. 236).

THE Pharmaceutical Society of Great Britain loses on men in business, but gains with employees. So the Secretary's report indicates (pp. 223 and 239).

PROFESSOR HERKOMER has produced a portrait of Professor Attfield. Proofs of it will be presented to those who subscribe 10s. to the Attfield testimonial (p. 233).

AN official document relating to foreign competition has been published by the Board of Trade, and is noted on p. 245; we give an interview with Mr. Tyrer on the "Made in Germany" question on p. 244; and on p. 252 appears a letter from the maker of the 4711 Eau de Cologne arguing that German prosperity means an improved demand for British goods.

THE High Court has refused to review the decision of Magistrates in the case of a chemist who had sold milk of sulphur for precipitated sulphur. He stated that he explained the difference to the purchaser, and the Magistrates dismissed the summons. "What is the use of having a forty years' good character if you can't be acquitted sometimes?" asked one of the Judges (p. 241).

SALICYLIC ACID in quinine wine was not regarded as an adulteration by the Stratford-on-Avon Magistrates. Arsenical soap, with no arsenic, which was not a drug at Wimbledon becomes one at Epsom. Spirit of nitrous ether, half strength, is passed at Barry Dock, but at St. Asaph a sample of spirit of nitre containing only one-fifth of the B.P. minimum of ethyl nitrite secures a penalty (p. 241).



Chemical-trade Items.

The Cheshire Alkali and Salt Company, of Middlewich, have been fined at the Northwich County Court, at the rate of 20*l.* a day, for polluting the rivers Dane and Croco with lime.

Thomas Long, of St. Helens, 19 years of age, died on January 27 in a tragic manner. He was employed in the chlorate house of the Hardshaw Brook Chemical-works, and while sitting in front of the fire at his lodgings a spark flew out and ignited the chlorate on his clothes, which flared up instantly, with the result that his legs and the front of his body were most terribly burned. He died the next day.

At the Northwich County Court, on January 27, Judge Wynne Ffoulkes concluded the hearing of a case which has occupied four sittings of the court, and which is of vital importance to both chemical manufacturers and farmers. It was an action brought by Henry Warburton, farmer, to recover from Davis's Chlorine Processes (Limited) 47*l.* 15*s.*, amount of damage alleged to have been caused to a crop of oats by the emission from the defendant's works of noxious fumes. His Honour reserved judgment.

There has been some correspondence in the *Morning* about Condyl's Fluid. Someone in that paper recommended for some purpose a solution of permanganate of potash, which he said was Condyl's Fluid. Mr. H. J. Bollmann Condyl wrote to say it was not. Then a Mr. Conrad, of Dalston, threw doubt on Mr. Condyl's statement, saying it was "a question of commercial veracity *versus* science." Whereupon Mr. Condyl rejoined challenging Mr. Conrad to show so much confidence in his opinion as to deposit 100*l.* in the hands of some gentleman of position, he (Mr. Condyl) to deposit the same amount, and to refer Condyl's Fluid to Dr. Otto Hühner for analysis; the disputant found to be in error to forfeit the 100*l.* deposit to St. Mark's Hospital, City Road, and to pay Dr. Hühner's fee. "I have yet to learn," adds Mr. Condyl, "that a manufacturer is ignorant of the composition of his own proprietary article." Mr. Conrad refuses the challenge, but quotes numerous authorities in support of his statement. Other correspondents state that Condyl's Fluid is a solution of permanganate of soda.

Fires.

One day last week a fire broke out in a parlour above Cumber's pharmacy in Fountain Street, St. Peter's Port, Guernsey. But for timely discovery serious damage would have resulted.

A slight fire occurred at the shop of Mr. F. W. Piggott, chemist and druggist, King Street, Huddersfield, on January 26. It originated in the cellar beneath the shop, and with the help of the brigade was extinguished within half an hour, more damage being done by water than fire.

A fire broke out at Pontefract on Sunday, January 24, resulting in the complete destruction of a liquorice-factory belonging to Councillor A. Taylor White. A large quantity of machinery for the making of "Pontefract cakes" was destroyed, and also a few tons of finished cakes, as well as a considerable weight of raw material.

Chemists' Assistants and Prussic Acid.

An inquiry was held at the Leicester Town Hall, on January 27, touching the death of James William Purdy (27), dispenser to Dr. Johnston, London Road, who committed suicide by taking a quantity of prussic acid. Dr. Johnston said the deceased had been employed by him for nearly three years as dispenser. When witness went into his surgery, about ten minutes to 3 o'clock, he found deceased asleep on a chair, and came to the conclusion that he had been taking too much drink. Witness woke him,

and told him he need not trouble about dispensing the medicines for the patients that afternoon, as witness would do so. He seemed distressed because he could not do his work, and hoped that witness would look over his condition. He promised to do so, and witness gave instructions for the room to be kept warm, and instructed the cook to make him some hot gruel. Edith Sainsbury, cook, said about 3.50 she took deceased a basin of gruel in the surgery. He was lying on the sofa, crying, and he refused to take it. Later in the afternoon she found deceased about to go out, and, on questioning him, he said, "I am going, and you will never see me again. I have made a fool of myself this time," and went out into the street. Mrs. Barker, his landlady, said when he returned home about twenty minutes to 5 he was sobbing violently, and held up a small bottle, saying, "My only friend." She called her husband to the room, upon which the deceased threw the bottle into the fire. It was afterwards found to have contained prussic acid. Upon the arrival of medical assistance he was found lying on the couch insensible. He died shortly afterwards. The jury returned a verdict that deceased committed suicide by poisoning.

At the Manchester Police Court, on February 1, a young man named Bertie Richmond was charged with being drunk and incapable and with stealing a bottle of prussic acid. It was stated that prisoner was a chemist's assistant, and up to recently had been employed by Mr. Charles Gibson Breadner, chemist and druggist, Elizabeth Street, Cheetham. He ought to have taken up duty at the shop at 6 o'clock on Sunday evening, but he was then so drunk that Mr. Breadner discharged him, and he went away. Discovering that he had taken a bottle of prussic acid with him, Mr. Breadner communicated with the police, and Richmond was found at a neighbouring public-house, where he had been allowed to lie down, and the bottle was taken from one of his pockets. Prisoner was remanded for a week.

An Active Jersey Deputy.

The regulation as to vaccination was recently presented to the Jersey States by Deputy (Dr.) Duret-Aubin, for renewal, he expressing his conviction it was wise to readopt it so as to ensure pure lymph. The measure was tabled for future discussion. Deputy Duret-Aubin, who is the author of "A Regulation as to Pharmacy," and has promised a Dentist's Bill, last week also introduced a Bill rendering certain provisions of the English Lunacy Act locally applicable.

More Trouble with the Syphons.

The Clerk to the Holborn Board of Guardians read a letter at a meeting of the Board on January 27, with which was forwarded an account for 6*l.* 17*s.* 4*d.*, value of bottles and cases not returned from the Mitcham Schools to the Chemists' Aerated and Mineral Waters Association (Limited). Mr. Enos Howes, J.P., moved that this account stand over until inquiries had been made as to what had become of these goods. All empties ought to be taken care of. This was agreed to.

The Holborn Guardians' Dispensary.

The Dispensary Committee of the Holborn Union reported at the same meeting, as above, that they had visited the dispensary at the City Road Workhouse, and found the same in good order, and all their suggestions for safety and convenience carried out. Further, that they had considered the question of dispensing at the Highgate Infirmary, and decided that Mr. C. H. Fryer be exclusively employed there as dispenser, and that he keep the indoor medical-relief list, and that his salary be 120*l.* per annum.

Store-prices.

The C.S.S.A. notify the following alterations in their February price-list:—Acid (citric), from 1*s.* 9*d.* to 1*s.* 7*d.* per lb.; acid (tartaric), from 1*s.* 5*d.* to 1*s.* 4*d.*; cream of tartar, 1*s.* 2*d.* to 1*s.*; Howards' quinine (1 oz.), from 1*s.* 8*d.* to 1*s.* 6*d.* Mariani wine, one of the P.A.T.A. articles, has been taken out of the list.

The Army and Navy C.S.L. have discontinued stocking Allcock's porous plasters and frame-food jelly. They quote Smedley's chillie paste 1*s.* 3*d.* They have added the

following:—Dredge's heal-all, 1s.; Dr. Scott's liver-pills, 11d. and 2s. 3d.; electrozone, 10d.; Horlick's malted milk, 9s. 6d.; Mrs. Johnson's soothing-syrup, 2s. 4d.; "Petal-dust" sachets, 2½d. each; and a new preparation, the Army and Navy anodyne cough-specific, 1s. and 2s. 3d. per bottle.

The Alleged Syphon Frauds.

Alfred Plant (41), dealer, of Hyde Road, Hoxton, was brought up on remand at North London Police Court, last Saturday, to answer a charge of falsely and fraudulently obtaining fifteen soda-water syphons, the property of Mr. Wells Woods, chemist, of Albion Road, Stoke Newington. Mr. Windsor, in his speech for the prosecution, pointed out the serious nature of this offence. Though fifteen syphons only were in question now, Mr. Woods would say that he had lost over one hundred in a year, and the value per syphon was 2s. 9d. Besides the individual loss, such frauds created friction between the chemists and their customers, and also between the chemists and the mineral-water makers, because it led to disputes in balancing up, unpleasant to everybody. There was no doubt this was a very cleverly-planned fraud, as the prisoner must have watched for Mr. Woods's customers before he went to ask for Mr. Woods's syphons. Though there were several other charges to prefer against the prisoner for obtaining many other bottles—wines and spirits, ginger-beer, ale, and porter—at present the prosecution had not got to know of his having obtained more syphons; but he (Mr. Windsor) would have to ask for another remand to enable the police to make further inquiries. The prisoner had been identified that morning in court by some domestic servants from whom he had obtained bottles, each one picking him out without hesitation from amongst eight or nine other men of his own stamp. The prisoner could not deny obtaining the three syphons with which he was caught, but he would not admit the other charges. A mass of evidence was taken connecting the prisoner with the bottle-robberies, and in three cases he was committed for trial, and then remanded for further inquiry.

A Fine Sample of Ginger-beer.

The Excise authorities at Sheffield are continuing their crusade against vendors of herb and ginger beers which contain more than the allowed quantity of 2 per cent. of proof spirit. They brought before the Magistrates five cases on January 29. The first three cases taken were those of retailers who had sold herb or ginger beer containing respectively 4.3 per cent. of proof spirit, 5.8 per cent., and 3.9 per cent. They had evidently used too much sugar, and the Excise officer said it was not safe to go beyond ¼ lb. sugar per gallon. Each defendant was cautioned and fined 10s., including costs.

The other cases were against people who supplied these drinks to shopkeepers, and did a brisk business. The herb-beer bought of Emma Fuller contained 3.1 per cent., and her ginger-beer 3.5 per cent. of proof spirit. She pleaded ignorance, and was let off with a fine of 10s., including costs. The case which excited most interest was that of James Stanger, whose ginger-beer was found to contain 10.8 per cent. of proof spirit, and his business was so extensive that he bought in his sugar a ton at a time. The officer said he had never known a case in which the percentage of alcohol was so high. It was nearly as strong as Guinness's stout, which contained 11 per cent. of proof spirit. London beer averaged 9 per cent. The defendant had supplied a really beautiful sample of ginger-beer—the finest he had ever tasted. The defendant said his drink had never made anybody drunk, but men got sober on it. Fined 10s. and costs.

The Football Trade.

Messrs. Boots (Limited) are endeavouring to push the sale of Anderson Gratten's embrocation among footballers. With this object in view, they offer 40l. in prizes to purchasers of the embrocation who give the correct or nearest result of the final round of the English Cup competition.

Mistaking the Medicine.

At an inquest held at Stockton on January 25 it appeared that John Henry Wilson, aged 41, was accustomed to take bromide of potassium as a nerve-tonic, and that in mistake

he took a dose of corrosive sublimate, which he used in chemical experiments. He died in consequence.

Drug-contracts.

The Governors of the Hereford Infirmary have accepted the tender of Messrs. Herrings & Son, of London, for the supply of drugs (wholesale) to the Infirmary; and that of Mr. H. S. Pearmund for the retail supply of drugs.

Rather Previous.

At a meeting of the Southampton Grocers' Association, held on February 1, the question of affiliating with the Chemists' Association came on for discussion. Mr. P. C. Montgomery moved that, in the event of a chemists' association being formed, they be invited to co-operate with the Grocers' Association. This was seconded, but another grocer moved as an amendment that the question be deferred until a chemists' association was formed. The amendment struck the assembled grocers as reasonable, and it was carried.

The B.M.A. Museum.

The British Medical Association is to meet at Montreal this year from August 31 to September 4, and in connection with it there will be the usual annual Museum. The committee, of which Dr. Perrigo is chairman, and Dr. Stirling and Dr. Jack are the secretaries, have secured the Victoria Rink, immediately in the rear of the Windsor Hotel, for the exhibition. This building will give a floor-space of 30,000 feet. The Customs authorities have offered every facility for exhibitors. The Museum will practically be a bonded warehouse with Customs officer in charge, and no duty will be charged on any exhibit except in cases in which a sale is made. The Rink has been engaged for two weeks, to allow exhibitors time to place their exhibits and remove them after the meeting.

The Pharmacy Act in Jersey.

At last Monday's sitting of the States or Legislative Assembly of Jersey the author of the proposed regulation on the practice of pharmacy and the sale of poisons in the island, Deputy Duret-Aubin, proposed to substitute the following for Article 13:—

Articles 8, 9, 10, and 11 of this regulation do not apply to poison or poisons forming part of the ingredients of medicine prepared by a doctor or surgeon duly authorised to practise medicine or surgery in this island, or by a member of the Royal College of Veterinary Surgeons. Articles 9, 10, and 11 of this regulation do not apply to poison or poisons forming part of the ingredients of a medicine prepared by a chemist or druggist who has obtained permission to practise the profession of chemist or druggist in this island in virtue of the present regulation, provided that this medicine was prepared by a chemist or druggist bears the name and address of the vendor, and that the ingredients composing it are entered, with the name of the purchaser, in a special book kept by the vendor, and termed "Prescription-book."

Deputy E. B. Renouf, another of the representatives of St. Helier in the States, also presented an amendment, proposing that the provisions of the law should be extended to all chemists and druggists in business in Jersey at the time of its enactment (an important concession, evidently comprising Boots' Drug-stores, but recently opened); also to all local assistants and apprentices of five years' standing, who would, however, have to register within six months of the passing of the Act. Both amendments were duly tabled unopposed, and will be discussed when the measure itself comes before the House early during the present Session.

Leathersellers and Chemical Research.

The Leathersellers' Company on December 2, 1896, under the mastership of Dr. W. H. Perkin, F.R.S., voted a grant of 150l. a year to be applied in founding one or more fellowships, entitled "Leathersellers' Company's Research Fellowships," for the encouragement of higher research in chemistry in its relation to manufactures. The amount of the grant attached to each fellowship is to be determined by the Executive Committee of the City and Guilds of London Institute, regard being had as far as practicable to the nature of the research, the time required to complete it, and the merits of the candidate; subject in all things to the approval of the Company. The fellowships will be open to natural-born

British subjects, and preference will be given to students of the Institute who have completed a full three years' course of instruction in the chemical department of the Central Technical College. But this is not an essential condition. Particulars of the scheme can be had from the Honorary Secretary of the Institute, at the head office, Gresham College, E.C.

Window-smashes.

A horse, belonging to a firm of spirit-merchants at Penzance, bolted on Thursday of last week, whilst on a delivery round. On coming to a sharp corner, leading into the market-place, the animal miscalculated the necessary curve, and dashed directly into the plate-glass window of Mr. Carter, chemist, the force being so great as to snap the iron bar at the back of the window, and a young woman standing in the shop was bowled over. The horse was badly damaged, and so was the window.

A few soldiers of the 2nd Royal Lancaster Regiment, who were on draft for foreign service, had a carousal on the night of January 29, at Devonport, in the course of which they smashed many panes of glass belonging to various shops on their way to barracks. Mr. Filmer's pharmacy, in James Street, happened to be one, and a large pane got damaged. The ringleaders were arraigned before the Magistrates next morning; one got fourteen days' hard labour, the other was discharged with a caution.

Wanted.

The City of London police have issued to the wholesale trade a description of a man who, on January 28, obtained a sovereign by falsely representing himself to be the son of Mr. Thomas McMullan, wholesale chemist, of Belfast, and was staying at the London and North-Western Hotel. Age, 35 to 40; height, 5 feet 7 inches; clean shaven, dark hair, and of gentlemanly appearance; dressed in high hat, with hunting-ring band, short trousers, red socks and lace boots.

Charges of Stealing from Chemists.

Two boys, named Haywood, aged 11 and 15 respectively, were charged at the Nottingham Guildhall on Monday with breaking and entering the shop of William Gill, chemist and druggist, 207 Radford Road, Hyson Green, and stealing a cash-box, containing 8s. in money, stamps to the value of 13s., and a number of documents, on January 19. The prosecutor said that about half-past 8 on the day named he was called to his premises, and found the back-kitchen window had been broken, and entrance effected that way. He missed the articles named. According to the testimony of the police, the Haywoods were seen on the premises, and ran away, but were afterwards arrested. They were committed to take their trial at the next Quarter Sessions of the borough. They were also charged with being concerned in two other shop-robberies in Nottingham, and committed on those charges also.

At Bow Street on Monday, John Williams, a shabbily-dressed man, was charged with theft on Saturday last in the chemist's shop of Mr. John Heekes at 55 St. Martin's Lane, where he asked for a bottle of Browning's neuralgic drops. The assistant went to the back of the shop to consult his price-list. Whilst he was doing so he turned round, and saw the prisoner take a box of perfume from the counter and leave the shop. The assistant instructed the errand-boy to follow him. The boy shadowed him through several streets, saw him give something to two other men, and eventually gave him into the custody of 302 E in the Strand. As they were going to the police-station the prisoner took from his pocket the stolen box of perfume, and held it behind his back. The errand-boy, who was following, promptly seized it, and handed it to the constable. A box of eau de Cologne, worth 4s., was found in the prisoner's pocket, but this had not been taken from the shop in St. Martin's Lane, and an owner is wanted for it. The prisoner was remanded.

Is Jeyes' Disinfectant Non-Poisonous?

On Friday, January 29, Mr. A. Braxton Hicks, the South-Western Coroner, opened an inquiry at Battersea with reference to the death of Annie Chandler, aged 45, the wife of an electric-light engine driver employed at Victoria Station. After taking evidence of identification from Charles

Chandler, the husband, who stated that his wife had been given to drinking to excess for six years, the Coroner said that was as far as he proposed carrying the case that day. The deceased was said to have died soon after taking a quantity of Jeyes' disinfectant, which was supposed to be non-poisonous, and there would have to be an analysis. He understood there were two gentlemen present from Messrs. Jeyes, who would have an analysis made on their own account. The inquiry was accordingly adjourned. We understand that Dr. Womack, an analyst to the London County Council, will make the analysis for the Coroner.

The P.A.T.A.

Tuesday, February 16.—Clarendon Rooms, Granby Street, Leicester, at 8.30 P.M. Chairman, Mr. T. Howard Lloyd. Meeting convened by local committee consisting of Messrs. F. W. Goodess, A. Berridge, and W. Thirlby.

Wednesday, February 17.—Royal Hotel, Grimsby, at 3 P.M. Convened by Grimsby and District Chemists' Association.

Thursday, February 18.—Hull. Convened by Hull Chemists' Association.

"Daisy" headache-cure has been added to the protected list. The minimum retail price of the 1s. 1½d. size is 1s., and of the 7½d. size 7d.; wholesale, 10s. 6d. and 5s. 6d. respectively, or 10s. for three-dozen lots of the 1s. 1½d. size.

Indian Famine Fund.

During the week the undermentioned firms and persons have given donations to this fund:—

	£	s.	d.		£	s.	d.
A & F. Pears (Limited)	105	0	0	Dr. E. J. M. de Souza,			
Vinolia Soap Company	105	0	0	Rangoon	5	0	0
Proprietors of Scrubb's				P. V. Morgan, Esq. ..	4	4	0
Cloudy Ammonia ..	10	10	0	Allen & Hauburys'			
Savory & Moore ..	10	10	0	employes	3	16	6
Spies Brothers & Co. ..	10	10	0	Brand & Co.'s employes	3	10	3

Where to Get Good Castor Oil.

Dr. Bernard Dyer, in his quarterly report to the Leicestershire County Council on Wednesday, said he had analysed twenty-eight samples of castor oil, purchased, he believed, from about two-thirds of the druggists within the county jurisdiction. Castor oil was an article very easily adulterated with cheaper oils, but it was satisfactory to be able to say that every sample proved to be not merely passable, but genuine beyond suspicion. Twenty-five samples of laudanum and one of sweet nitre had also been analysed, and found to be genuine.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

A Bottle-exchange for Dublin.

The Dublin mineral-water manufacturers are making arrangements to establish a bottle-clearing exchange in the city, so as to enable each manufacturer to keep his own bottles, and avoid their promiscuous use by the trade generally, as at present.

The Mullingar Medicine-contract.

On January 28, in the House of Commons, in reply to Mr. Tully, M.P., the Chief Secretary said that an inquiry was held in June last by the Local Government Board respecting the medicine-supply of the Mullingar Union, and the Board, after careful consideration of all the facts adduced at the inquiry, came to the conclusion that the contractor ought not to be entrusted with the supply of medicines, and they accordingly requested the Guardians to terminate the contract. This the Guardians unanimously decided to do. It appeared, from the evidence given at the inquiry, amongst

other things, that the prices of the accepted tenders of articles most in use were largely in excess of those in the other tenders, and the prices charged for extra medicines not on the authorised list, which the contractor, on the terms of the Board, was bound to supply at current wholesale prices, were largely in excess of what they should have been, the Guardians having accepted a list of prices, furnished by the contractor, purporting to be wholesale prices.

Personal.

The Senate of the University College of Medicine, Virginia, has conferred the degree of Doctor of Medicine on Mr. George Foy, L.A.H., Dublin. This is the only occasion upon which the University College has conferred the degree of M.D. *honoris causa*.

At the recent pharmaceutical examination in Dublin, Mr. George Augustus Deans, who took third place at the licence, test, was congratulated as being the youngest L.P.S.I. in Ireland, and probably in the Kingdom.

A Valiant Chemist.

Mr. Joseph Shepherd, chemist, Waterside, Londonderry has arranged to deliver a public lecture in the City Hall on "The Effects of Strong Tea on the Brain." Mr. Shepherd, it appears, is not afraid of microbes. He offers to demonstrate their innocuousness to the audience, if necessary, by eating on the platform all the microbes that can be collected by the entire medical profession of the city from the present time until after Easter.

The Drug and Chemical Trade in Dublin.

In the Dublin Directory, just published, it is stated that there are in Dublin 308 chemists and druggists and 41 manufacturing chemists. The value of the imports into Dublin of chemical manufactures and products for the past year is set down as 1.131%, as compared with 1.450% for Belfast, 809% for Cork, and 86% for Londonderry. The total value of the exports of chemical products and preparations is recorded as 2.296%. The number of dispensaries throughout the country is given as 1,161, and in 46 of these apothecaries or pharmaceutical chemists are employed. The cost of drugs, medicines, surgical and medical appliances supplied to Irish Poor-law Unions in the year is estimated at 27,000% nearly.

Union Medicines in Emergencies.

At the Longford Quarter Sessions, on January 26, before Judge Curran, Mr. Samuel Wilson, J.P., chemist, Longford, sued the Guardians of that town for 13% 8s. 10d. for medicines supplied to the order of the medical officer of the Union in emergencies. Mr. Wilson was not the contractor, and he was himself a Guardian. But the contractor lived at Sligo, and Dr. Cochrane said it was exceedingly inconvenient to get medicines in a hurry from there. The Local Government Board when applied to had intimated that Mr. Wilson had rendered himself liable to a fine of 100% in that, being a Guardian, he had supplied the Board. Since that intimation he had supplied medicines at cost price. The Judge gave a decree for the full amount claimed, with two guineas each for two doctors who gave evidence.

Guardians on Worthless Drugs.

At a meeting last week of the Carrick-on-Suir Guardians the question of the alleged throwing-out of medicines from the hospital was discussed. The master said he had been informed by the doctor that it was not the fact that a large quantity of medicines had been thrown out, but that only the unused remnants of bottles which had become valueless were so disposed of, in order to get clean bottles. The Chairman questioned the doctor's right to throw out the medicine, however worthless it might be. Mr. Thompson said medicine often got bad after being opened, and had to be thrown away. Mr. Walsh wanted a report as to the amount of medicines wasted, and this was agreed to. The Chairman thought the doctor had a right to let the Board know his intention before he emptied any of the medicine-bottles. Mr. Drohan imagined that the doctor was the best judge of the disposal of old and worthless medicines, and thought he was right in destroying the mixtures if he chose. A comparison between drugs and old clothes having been

made, the same speaker said there was a vast difference between old rags and medicines. Any Guardian could judge the value of clothing, but not of chemicals. Mr. Walsh said if medicine was found to be useless after the use of a small quantity, it should be ordered in smaller proportion. The discussion continued in this way for some time.



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Glasgow Parish Medicines.

At the monthly meeting of the Glasgow City Parish Council, on February 2, the Medical Committee reported that during the month 7,827 prescriptions had been made up in the Parliamentary Road Dispensary for the indoor poor, and 727 for the outdoor poor. The outdoor poor had also 186 prescriptions made up as follows:—By the Glasgow Apothecaries' Company, 8; by Messrs. J. & R. Rodman, 65; and by Mr. D. P. Walker, 113. The committee reported having purchased the following articles, for which samples were submitted:—From Messrs. Brown Brothers & Co., 120 lbs. grey cotton, at 7½d. per lb., and 10 gallons olive oil, at 4s. 2d. per gallon; from the Glasgow Apothecaries' Company, 1 cwt. senna-leaves, at 5d. per lb., and 25 gallons cod-liver oil, at 6s. per gallon; from Mr. James Taylor, 120 lbs. cotton-lint, at 10½d. per lb.; and from Messrs. W. & R. Hatrick & Co., 160 lbs. castor oil, at 41s. 6d. per cwt. The Council approved of these purchases. It was reported that out of thirty-six applications for the vacancy in the assistant dispensership at the Parliamentary Road Dispensary, Mr. John Stalker, 51 Dorset Street, had been appointed at a salary of 20s. per week. Approved.

A Chemist's Assistant's Divorce.

In the Court of Session, on January 30, Lord Pearson heard a petition for divorce from Jane McLeod or Anderson, Edinburgh, against her husband, John Smith Anderson, chemist's assistant, lately residing at 20 Caledonian Road, Edinburgh. The pursuer said she was married to the defender in London in 1893, but that, owing to his drinking-habits, and the fact that he did not support her, she had to leave him at the end of eighteen months. She went to her parents in Inverness. Six months later he followed her, and promised to reform and provide a home for her. She subsequently took a situation in Edinburgh, and learned that the defender and a Mrs. Forbes, a married woman keeping a milliner's shop, had been living as man and wife. She therefore raised the present action. On the question of the jurisdiction of the Court, in answer to Lord Pearson, pursuer stated that defender was a native of Sutherlandshire, and that since he came to Edinburgh he had been in the employment of the Scottish Drug Depot. The defender, although he did not lodge defences, was present, and made several statements, and it appeared as if a wrangle would ensue. The pursuer asked the protection of the Court, and his Lordship told the defender he would only be allowed to put questions. In answer to his only question, pursuer denied that they had lived together in East Adam Street. Defender stated that his wife had plenty of money while they were in London, and that she left him without any cause. After that, she refused to have anything more to do with him, but subsequently she had condoned his offence by living with him a week in East Adam Street. At the end of that time she refused him admittance, and he went back to Mrs. Forbes. Lord Pearson said that, from the defender's own statement, if condonation had taken place, he had gone back on it. He gave decree of divorce.

French News.

(From our Paris Correspondent.)

A WELL-KNOWN ENGLISH CHEMIST.—The many friends of Mr. Backhouse, of Roberts & Co., Paris, will be glad to learn that he has now almost recovered from the somewhat serious indisposition from which he was suffering recently and is able to attend to business again.

HONOURS FOR HYGIENISTS.—On the recommendation of the Committee of Hygiene, the French Minister of the Interior has issued awards to a number of gentlemen for "their long and active participation in the work of the Council of Hygiene of the Seine." Amongst the number are MM. Julian, Beluze and Vervaest, pharmaciens; Valenciennes, manufacturer of chemicals, and Roher, Pharmacieen-chimiste.

CHEMISTRY AT NANCY.—As the result of a report made by M. Bichat, of the Nancy Faculty of Sciences, the Municipal Council of that town has voted the funds necessary for a course of theoretical and practical lectures on colouring-matters. The Professor will be M. Haller, Director of the Chemical Institute. In his report, M. Bichat refers to the fact that "the manufacture of colouring-matters derived from coal-tar, which originated in France and England, has since been practically monopolised by Germany, where nine-tenths of the artificial colours used in the entire world are now made."

THE ASSOCIATION OF PHARMACEUTICAL STUDENTS held its first "annual" meeting a few evenings ago at the Paris School of Pharmacy. M. Berger presided, and about two hundred students were present. The Chairman opened the proceedings by a speech in which he referred to the success of the Association, some 400 members having been enrolled since its formation in June of last year. The Treasurer announced a balance on the right side. Certain alterations were made in the rules. The meeting had the feature of being well conducted. This pleased, and perhaps surprised, the Committee, who cannot disguise the fact that pharmacy-students seem frequently inclined to show their high spirits, and are generally well to the front when there is any effervescence in the Latin Quarter.

THE BUBONIC PLAGUE.—At the last meeting of the Paris Academy of Medicine Dr. Proust gave in more developed manner his opinion as to the nature of the precautions to be taken against the bubonic plague. He concluded by saying that if every State does its duty there is hope that Europe will escape the plague. Dr. Roux followed and described the *Jacilli* of the pest. He referred to the infection of insects and animals, such as rats, serpents, flies, &c., as being the forerunner of the epidemic. He also explained the experiments made recently by Dr. Yersin at Paris on horses. These animals, Dr. Roux said, are very sensitive to the virus of the pest and contract a high fever after the first injection. The serum supplied by the horses has given excellent results in experiments made by Dr. Yersin, and he has since had much success in China by experimenting with his method on human beings.

M. PASTEUR AND THE FRENCH ACADEMY.—So much has been said about the life and work of Pasteur during the sixteen months that have elapsed since his death that it seemed difficult to imagine that there remained subject-matter for another prominent discourse. Yet M. Gaston Paris found sufficient for an excellent speech when, on January 28, he addressed the French Institute, on the occasion of his election to that body, in memory of Pasteur, whose seat he now fills amongst the *immortels*. "It was as much, perhaps, the character of the man," M. Paris said, "as his discoveries as a scientist that caused him to be as popular as he is celebrated. Alone amongst the great men of the century we saw his glory rise above all dissensions, and in one of the rare official functions in which the heart of the people may be said to have taken part his coffin entered the Cathedral of Notre Dame escorted by the blessings of the humble and the homage of the great; by the tears of the simple, and the regrets of the scientists; by the prayers of those who believe, and the meditations of those who seek." He concluded by saying, "If the grand example of your glorious

colleague contributes, as cannot be doubted, to spread amongst us a liking for science and truth, he will by that have as much served his country, which he loved so well, as by his immortal discoveries." Following the custom usual on such occasions, M. J. Bertrand replied to M. Paris's speech. His discourse was also a splendid tribute to Pasteur's memory.

Foreign and Colonial News

NO "PROFITABLE EXTRAS."—The Bloemfontein (O.F. State) druggists have been cautioned by the authorities against selling ink, birdseed, pens, and paper.

CLEARING THE NATAL REGISTER.—The Natal Pharmacy Board are overhauling their register, with a view to the removal of the names of persons defunct, or who have given up pharmacy.

TALC CONVENTION IN AUSTRIA.—The Venetian talc-works of Austria have formed a convention, and the product will in future be sold from two central offices, one in Vienna and one at Prague.

NO MORE PODOPHYLLIN WANTED.—The demand for podophyllin in South Africa has abated. Large quantities of copperas, blue-stone, and sublimed sulphur were sold during the recent rinderpest scare.

BUBONIC-PLAGUE REMEDIES.—The outbreak of bubonic plague at Bombay has naturally brought forth a host of discoverers of infallible specifics—which have somehow failed to stop the mortality. One of those put forward with the greatest show of confidence is said to be the invention of a "humble tramway starter." It is as follows:—For external application only: 1 part caetus milk (Fourdhari Nivdung), $\frac{1}{2}$ part unslaked lime (cali choona), $\frac{1}{2}$ part camphor (kapur), and 12 drops marking nut-oil (Bibra-tel). A good paste should be made and applied thick on the bubo, which should afterwards be branded with red-hot ordinary roof-tile, shaped flat to the size of the bubo. For internal use: 30 drops of a medicine (constituents unknown) to be taken three times a day in three teaspoonfuls of brandy each time. Children under 12 years 15 drops thereof. The secret specific, we may add, is given away free of charge by the "discoverer."

GERMAN BUSINESS CHANGES AND DIVIDENDS.—The chemical-works formerly Moritz, Milch & Co., at Posen, will pay a dividend of 9 per cent. on the ordinary shares for 1895-96. In the year before the dividend was 6 per cent. The share capital of the Consolidated Chemical-works at Altenburg has been increased from 400,000m. to 500,000m. by the issue of 100 preference shares of 1,000m. each. The proprietors of the chemical-factory Maintal announce that their chemical-business has been transferred to the chemical-factory Griesheim, Frankfurt-on-Main. It is unofficially announced that the chemical-works at Biebrich-on-Rhine, formerly Albert & Co., will pay a dividend of 6 per cent. for 1896. The second business year of the medical stores, a kind of co-operative concern for the supply of medical and pharmaceutical goods at Berlin, has again resulted in a loss. The loss for 1896 amounts to 46,301m., making a total for the two years of 111,003m. A firm has been entered upon the German chemical-register, under the name of the Elektrochemische Werke, Rheinfelden, with a capital of 3,000,000m. for the electrolytic production of sodium and potash salts. A factory will be built at Rheinfelden, and the managing directorship will be in the hands of Dr. Walther Rathenau and Mr. W. Schroers.

DISINFECTANTS FOR BOMBAY.—At the weekly meeting of the Bombay Municipal Standing Committee on December 23 last the tenders for the supply of disinfectants were discussed. The Secretary (Mr. Barrow) read letters from Messrs. Leopold & Co. and Messrs. John Flemming & Co. Mr. Dharamsi, a member of committee, pointed out that Messrs. Flemming's rates appeared to be higher than those quoted by Messrs. Leopold. Their rates for carbolic-acid powder were higher by 60 per cent. The Municipal Commissioner and the Health Officer nevertheless strongly recommended the acceptance of Messrs. John Flemming & Co.'s tender. Complaints were

heard from various quarters that the carbolic-acid powder at present used by the Municipality was of a very inferior kind and scarcely fulfilled the object for which it was used. The expenses incurred on it were a sheer waste of money. Dr. Katrak had heard similar complaints from the people. Dr. Weir, the Health Officer, declared that the powder at present used by the Municipality, which was examined by the Government chemical analyst, was not of an inferior kind. Dr. Veigas considered it a mistake to use carbolic-acid powder. He was of opinion that the liquid acid should be used. It was resolved that the tender of Messrs. Leopold & Co. be accepted. The rates quoted by them are as follows:—Carbolic-acid powder, per cask 10s. 8a.; Sanitas powder, per cask 21s. 8a.; carbolic acid, Imperial gallon 2s. 8a.; cresol per 210 and phenyle per 3s. The acceptance was made subject to the provision that so far as carbolic powder was concerned the Municipality should be at liberty to buy if they thought fit any other carbolic powder, the arrangement with Messrs. Leopold & Co. being that such powder as might be ordered from them should be supplied at the rate aforesaid.

Personalities.

MR. JOHN MCNEIL, the principal of Messrs. T. McMurdo & Co., St. John's, N.F., and Mrs. McNeil arrived in London this week, and will be here for a few months.

CANNIZZARO celebrated the 70th anniversary of his birth last year. A volume dealing with the atomic and molecular theories, and other subjects with which his name is connected, has just been published by international subscription as a souvenir of the event.

THERE is an interesting interview in the last number of the *Sunday School Chronicle* (January 28) with Mr. E. Johnson, superintendent of Mansfield Street Schools, Southwark. In the portrait published with the interview we recognise a gentleman whose name figures in the firm-style of a well-known London wholesale druggists' sundries house. Mr. Johnson told his interviewer that he had been connected with the schools for fifty-six years. This startled his visitor, for he looks a few years younger than that figure. "Yes," he said, "I was carried there when I was a year old."

DR. FREDERICK B. POWER, director of the Wellcome research laboratory, is the subject of an appreciation in the *Alumni Report* of the Philadelphia College of Pharmacy, from which Dr. Power graduated in 1874. Dr. Power's investigations have ranged over a wide field. He began in 1877 with the constituents of podophyllum rhizome, then examined the mineral spring at Rosheim, in Alsace, and made the chemistry of *Asarum canadense* rhizome the subject of his doctorate thesis at Strasburg in 1880. It was nine years later before Dr. Power began to publish work on essential oils, with which subject his name has latterly been identified. In addition to being co-author with Hoffmann of a manual of chemical analysis, Dr. Power has published translations of Professor Flüchiger's "Cinchona Barks," and of Flüchiger and Tschirch's "Principles of Pharmacognosy."

IN our interview with Mr. W. G. Baker, of Battersea (published last week), a statement appeared that Price & Gifford, the Mincing Lane brokers who transacted the bulk of the camphor-business in Mr. Baker's young days, had long ceased to exist. It is true that the drug-broking firm of Price & Gifford has long ceased to occupy a place in the London Directory, but the business once conducted in their name still flourishes under the style of Price, Hickman & Co. Price & Gifford (we are informed by one skilled in business-genealogy) were engaged in mercantile pursuits in the early part of the century, first in Suffolk Lane, afterwards at No. 5 Mincing Lane, and still later at 17 Mincing Lane, the present business address of Price, Hickman & Co. The firm continued under the style of Price & Gifford until the end of 1866, when Mr. Gifford retired. At his retirement the remaining partners, Messrs. Thos. Price, sen., Phillip Devereux Hickman, and Thos. Price, jun., admitted as a new partner Mr. Henry Wilson Price. Mr. Gifford and Mr. Thos. Price, sen., both died in 1871; Mr. Thos. Price, jun., in 1873. Mr. P. D.

Hickman died in 1896, leaving as partners in the firm only Mr. Henry Wilson Price (now the head of the firm) and Mr. Geo. Herbert Price, who had been taken into the partnership on March 23, 1884. On January 1 last a representative of a third generation of Prices was admitted into the partnership in the person of Mr. Athelstan Elder Price.

Deaths.

BURN.—On January 27, at 460 Collyhurst Road, Manchester, Mr. Thomas Burn, chemist and druggist, late of 446 Rochdale Road. Aged 51.

GEORGE.—On January 21, Mr. William Arthur George, chemist and druggist, Pentre, Pontypridd. Aged 30.

HUNT.—On January 27, Mr. William Hunt, chemist and druggist, 16 Denmark Hill, Camberwell, S.E. Aged 68. Mr. Hunt had been in business for over forty years in Camberwell.

MATHER.—On January 19, Mr. William Mather, chemist and druggist, South Hylton, Durham. Aged 81.

MILLER.—On January 26, at High Street, Hampton Wick, Mr. Charles Stewart Miller, chemist and druggist, High Street. Aged 70. Mr. Miller had resided at Hampton Wick for about eight years.

NIND.—On January 26, at 6 Ringford Road, West Hill, Wandsworth, Mr. George Nind, pharmaceutical chemist, seventh son of the late Benjamin Nind, of the Hon. East India Company's Service. Aged 78.

PRATT.—On January 27, at Wolverhampton, Mr. Josiah Pratt, chemist and druggist, Stafford Street. Aged 70. Mr. Pratt was a native of Henley-in-Arden, but had lived in Wolverhampton about forty years. He sat on the Town Council for a long period, and was a prominent Liberal and Nonconformist.

RILEY.—On January 18, Mr. J. P. Riley, chemist and druggist, Hetton, Yorks. Aged 58.

SMITH.—On January 23, at Buxton, Mr. J. S. Smith, chemist and druggist. Aged 72 years. Deceased was in business for many years at Hazel Grove, near Stockport, but retired from commercial life some years since.

WELLS.—At Cap d'Antibes, on January 31, Sir Thomas Spencer Wells, Bart., F.R.C.S., M.D. Aged 78. The deceased gentleman was one of the leading English gynaecologists, and it is owing to his early practice that ovariectomy has become one of the safest and commonest of operations. His medical education was obtained at the Leeds Medical School, at the Anatomical School of Dublin, and in St. Thomas's Hospital, London. His first responsible practice was as a surgeon in the Royal Navy, and when the Crimean war broke out he was appointed on the staff of the Eastern military hospitals, and became chief surgeon of the Auxiliary hospitals at Smyrna and at Renkioi. After the war he began private practice, and worked out the operation of ovariectomy, paving the way for subsequent specialists in this department. He published four books on the subject, besides numerous papers. In 1882 he was elected President of the Royal College of Surgeons, and in the following year a baronetcy was conferred upon him. Until last year he was surgeon to the Queen's household. He has not been in active practice for some years. Sir Spencer Wells was married in 1853, and is succeeded in the title by his son Mr. Arthur Spencer Wells.

WILLIAMS.—On January 16, Mr. Josiah Thomas Williams, chemist and druggist, Coleford. Aged 72. Mr. Williams had been in business at Coleford between thirty and forty years, and had gained for himself a very honourable name in the town. Three years ago he had a paralytic seizure, which forced him to relinquish his business. He leaves a widow and son.

THE B.P. IN CANADA.—Writing of the percolation, the *Canadian Pharmaceutical Journal* states that in Canada "the B.P. instructions for percolation are seldom carried out," maceration alone or the U.S.P. percolation method being adopted.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

THERE was scarcely any business of national interest transacted at Wednesday's meeting, although seventeen of the members had come to 16 Bloomsbury Square to help it through. Perhaps the most interesting thing besides the Registrar's statement was the ballot for retiring members, which leaves the President (Mr. Walter Hills), Messrs. Bateson, Cross, Johnston, Newsholme, Storrar, and Symes in office until May, 1898. The luck has changed for Mr. Hills since he has taken the chair. The Registrar's report showed that there are still some persons who were in business as chemists and druggists before 1868, and have allowed the twenty odd years since to elapse before registering. Two were so registered last year, and 504 others by examination, making, with restorations, an addition of 523 to the register; but deaths and erasures bring down the additions to 88, so that the number on the register on December 31, 1896, was exactly 15,166. Of that number 4,825 belong to the Society, but only 3,841 of them are in business. The Society's membership actually improved during 1896 by 36 individuals, after deducting a loss of 37 in members and associates in business. The financial statement for the month was of the usual type, but including such items as 470*l.* to the lawyer, and 42*l.* to the College of Preceptors for conducting the Preliminary examination, thus leaving a nice margin for the Society, as the fees amount to 500*l.*, or thereby. The chief item in benevolence was the arrangement to hold the decennial dinner in the Victoria Hall, Hotel Cecil, on May 18. The meeting was the shortest on record, public business being over a few minutes past 12, and during half the business hour our representative was reading his morning paper.

WHO WERE THERE.

The members of Council present were Mr. Walter Hills (President), Mr. John Harrison (Vice-President), Mr. R. Hampson (Treasurer), Messrs. Allen, Atkins, Bateson, Bottle, Carteighe, Corder, Martindale, Newsholme, Park, Savory, Storrar, and Young.

DEATH OF AN OLD MEMBER.

The PRESIDENT mentioned, after the minutes were approved, that he had learnt of the death of Mr. George Nind, of Wandsworth, a very loyal member of the Society, and formerly Divisional Secretary for Wandsworth. Some of the members might remember that it was Mr. Nind who presented the Society with a water-colour painting of Mr. Jacob Bell's house at Wandsworth, and a bundle of staves from the garden of the house.

THE BALLOT.

This being the President's first attempt at the ballot, he was peppered with many hints when he said that his duty now was to ascertain "those who will go off." "Shake it up!" (meaning the bagful of ivory balls) was the only hint he carried into effect, and he imparted a new touch into the business by asking Mr. Hampson to draw the balls and call them out while he (the President) said who they were. "Six—no, nine," was Mr. Hampson's first call. "Mr. Martindale," said the President. "Seven"—"Mr. Gostling." "Five"—"Mr. Corder." "Eleven"—"Mr. Park." "Twelve"—"Mr. Savory." "Two"—"Mr. Harrison." "Is that all?" "One, two, three, four, five, six—no, another." "Four"—"Mr.—Mr.—oh! Mr. Carteighe." Which minute report of the matter is to show that it is all fair and above board, as well as amusing while it lasts. In addition to the gentlemen drawn, Messrs. Allen, Atkins, Bottle, Grose, Hampson, Southall, and Young will also retire in May. The PRESIDENT was careful to add that these gentlemen will be eligible for re-election.

ELECTIONS AND RESTORATIONS

were the next business, and there was a goodly number. Then it was agreed that the

REGISTRAR'S REPORT

should be entered on the minutes and printed. This dealt with examinations, the register, and the Society's membership in 1896. We take these in their order:—

First Examination.

Candidates examined, 1,533; passed, 704; failed, 829 (54.07 per cent.). One hundred and twenty-five certificates accepted in lieu of the examination.

Modified Examination.

One examined and passed.

Minor Examination.

Candidates examined in London, 793; passed, 260; failed, 533 (67.21 per cent.).

Candidates examined in Edinburgh, 656; passed, 243; failed, 413 (62.95 per cent.).

Major Examination.

Candidates examined in London, 111; passed, 55; failed, 56 (50.45 per cent.).

Candidates examined in Edinburgh, 19; passed, 6; failed, 13 (68.42 per cent.).

THE REGISTERS.

Additions during the year:—

Number of persons who have passed the—

Minor	503
Major	61*
Modified	1
Number of persons restored to the Register on payment of a fine	17
Number of persons registered on payment of the registration fee, having been in business before August 1, 1868	2.
	523.

Erasures during the year:—

Deaths	245.
Erased at the request of registered persons themselves ..	4
Erased by the Registrar in pursuance of the provision set forth in section 10 of the Pharmacy Act, 1868, after sending two registered letters, to which no answer has been received	186.
Increase of numbers on the Register	88.
	52

Number of pharmaceutical chemists on the Register, December 31, 1896	2,253
Number of chemists and druggists	12,913
	15,166

THE SOCIETY'S STRENGTH.

	1895	189
Ph. Chem. members	1,604	1,584
C. & D. members	589	575
C. & D. associates in business ..	1,679	1,682
C. & D. associates not in business ..	961	984
Students	802	886
	5,635	5,671

FINANCE.

The SECRETARY read the report of the Finance Committee, which showed the following items:—

Society's Account.

	£	s.	d.
Balance, December 31	1,243	8	10
Received in January	1,850	19	2
	3,094	8	0
Paid in January	2,861	7	6
	233	0	6
Now required	1,614	14	0

Amongst the sums required were 130*l.* for repairs, &c.; 470*l.* for law expenses; 42*l.* 5*s.* to pay the College of Pre-

* These having already been included in the number who passed the Minor, do not increase the numbers on the register.

ceptors; 532*l.* for the monthly expenses of the journal, and a further sum for current expenses.

Benevolent Fund.

The balances in hand were:—Subscriptions, 93*l.* 16*s.* 4*d.*; donations, 404*l.* 1*s.* 5*d.*; orphan account, 124*l.* 2*s.* 3*d.*

The PRESIDENT could find nothing to say in regard to this report, and it was adopted.

BENEVOLENCE.

The death, on January 13, of Elizabeth Wilks, who had been an annuitant for twenty-five years, was reported. Only one application for relief was considered, but it was outside the scope of the fund. To prevent the impression going abroad that the fund has "get no work to do," the VICE-PRESIDENT mentioned that there are five cases maturing—*i.e.*, waiting for full particulars before the committee take them up, and there may be more before next meeting. He also pointed the moral regarding Mrs. Wilks—*viz.*, the good that the fund does, this lady having lived in comparative comfort for twenty-five years through it alone.

LIBRARY AND MUSEUM.

The attendance in the library during 1896 was 4,307 in the daytime and 1,312 in the evening. The museum was patronised by 4,915 in the day and 409 in the evening. Mr. Rutherford Hill reported to the curator the completion of the transference of the Royal College of Physicians Museum, and the purchase of Dr. Scoresby Jackson's museum for 45*l.* most of which, the PRESIDENT explained, had been subscribed by members of the North British Branch. He also expressed his gratification that such good additions had been made to the Society's museum in Edinburgh.

EXAMINATION MATTERS.

The Board of Examiners reported on the first examination (as appended).

MR. STORREAR, on this report, took the opportunity to explain that what he meant to say when speaking regarding the retirement of Professor Geddes was that the change in the constitution of the Board of Examiners by the introduction of professors brought about a new condition, and whether matters would go on pleasantly or not depended upon the tact of the professional examiners. Professor Geddes had shown such tact, and it was for that—not that he allayed friction, for there was none—that he thought Professor Geddes should be thanked. He made this explanation in consequence of an erroneous report in the Society's Journal; but he did not blame the reporters. Some members of the Branch had taken exception to the statement as reported.

BENEVOLENT-FUND DINNER.

The PRESIDENT intimated that the Committee had taken the Victoria Hall, Hotel Cecil, for the decennial dinner, in aid of the Benevolent Fund. It was also arranged to have the Meister Glee-singers present on the occasion, and probably their melody would open the hearts of the diners. He hoped it would be a successful dinner, and that many in the country would arrange to be in London on that date.

This was all the public business.

"FIRST" EXAMINATION RESULTS.

WE have received from the Registrar the following list of candidates who were successful at the examination held on January 12. 324 candidates presented themselves, and 159 failed. The following 165 passed:—

Andrews, Bertram L. M., Royston
Ashkanazy, Albert W., Dartford
Avery, Chas. W., Hemel Hempstead
Balfour, Andrew C., Jedburgh
Barrass, M. H., Shotley Bridge
Barron, William John, Turfiff
Bazley, Bertie W., Gloucester
Birkett, Thomas G., Ulverston
Bishop, William Booth, Turfiff
Blanchflower, A. F., Gt. Yarmouth
Bowen, John Arthur, Llandysul

Brown, W. A. P., Bishop Auckland
Bullock, Thomas L., Liverpool
Burr, Harold, Tottenham
Burton, Harry Osborne, Liverpool
Butler, Wm. Morgan, Tenby
Carson, James Howatson, Ayr
Cook, James, Dumfries
Cooper, George Paterson, Leith
Craig, Elwin Forbes, Aberdeen
Cressey, David E., Billingham
Culbert, William S., Glasgow

Cumming, James, Kirkcaldy
Curtis, Herbert N. Robt., Brighton
Dales, Joseph Wardle, Louth
Davies, Ralph C., Milford Haven
Denton, Norwood, Pontefract
Dodd, David, Manchester
Douglas, Mary Anne T., Edinburgh
Dow, James, Hantly
Dow, John Roy, Rothes
Dunbar, James, Dufftown
Earlam, Ernest, Frodsham
Eaton, Harry Oswald, Leeds
Edwards, Robert John, Wrexham
Elvery, Herbert Fred., Southampton
Ferguson, Alexander Sim, Dollar
Ferrier, James, Laurencekirk
Fieldgate, Fredk. Ward, Colchester
Fouracre, Robert, London
Fox, Ernest Nicholl, Liverpool
Frcke, Alice, London
Geake, Henry, jun., Dundee
Glascock, John Laybank, Norwich
Godson, George Frederick, Lincoln
Gowans, Duncan Stewart, Hawick
Grant, Peter James, Grantown
Green, Harold Walter, Birmingham
Gregory, Joseph Daykin, Mansfield
Hadley, John Arnold, Birmingham
Haines, James Hunt, Birmingham
Hardy, Digby Wrangham, Malton
Harker, George C., Richmond, Yorks
Hartley, William James, Blackpool
Hay, James Alfred, Bebside
Hazelby, Thos. Weaver, Swaythling
Henry, Alexr. McLaren, Wishaw
Heslop, C. W. B., Newcastle-on-Tyne
Hicks, Joseph, Edinburgh
Hirst, Harold C., High Aekworth
Hirst, Joseph Luther, Slaitwhaite
Hodges, Francis Sully, Bristol
Howse, Leonard Augustus, Croydon
Huntbach, Herbert, Preston
Hunter, Harry, Sheffield
Husbands, Frederick, Stapleford
Hutchison, James, Turfiff
Hymans, Herbert, London
Jobling, Edward, Sunderland
Jones, Daniel Thomas, Swinton
Jones, Edgar Alfred, Ripley
Jukes, Bernard C., Wellingborough
Kendrew, William Holme, Southport
Kenington, Robert B., Grantham
Kennedy, Herbert Wm., Aberdeen
Kernode, John W., Castletown, I.M.
Lewis, William M., Pembroke Dock
Leyshon, Thos. St. Leger, Spalding
Lindsay, John, Montrose
Low, John Hill, Fraserburgh
Lewis, John William, Bedale
Luke, Cecil B., Stonehouse, Devon
McCabe, Aubrey J., Sunderland
McCaig, Robert, Dumfries
McCartney, Walter, Darwen
McConachie, John, Keith
McGregor, James, Cullen
McIntosh, Finlay, Pitlochry
March, Fredk. Wm., Thrapston
Massey, Joseph, Manchester
Matthew, Arthur, Rochdale
Melbourn, Newell Evans, London
Metealfe, Wm. Edward, Keigbley
Miller, Donald George, London

Mills, Edward, Dealbigh
Murray, John M., Edinburgh
Newbould, Robert, Bradford
Nicholson, William, Glasgow
Nicol, Thomas, Edinburgh
Paterson, William John, Elgin
Pattullo, James Watson, Edinburgh
Pearce, Andrew H., Horwich
Peberly, Tom Cooke, Leicester
Pirie, Robert Corsane, Arbroath
Pitchford, Amy C. W., London
Pritchard, Walter, Carnarvon
Rae, John, Templeland
Ramsay, Robert Sparks, Dundee
Rees, David Andrew, London
Reid, Clifton Harold, Bedford
Reynolds, Frank, Droitwich
Rice, Thomas James, Birmingham
Robertson, Alexander, Partick
Robertson, William J., Betchworth
Selby, William Tordiff, Edinburgh
Sharp, Murray, Dunfermline
Shaw, Duncan William, Edinburgh
Shaw, Samuel, Whaley Bridge
Shearer, John Alex., Fraserburgh
Shepherd, Harry, Newcastle-on-Tyne
Shiels, Henry E., Ayr
Sim, William, Strichen
Simpson, Francis Ernest, Bloxham
Sizer, Charles Henry, Hull
Slaney, Charles Newnham, Dea
Smart, Agnes, Edinburgh
Smith, Harry, Stokesley
Smith, James Sidney, Truro
Smith, Mark Elkington, Louth
Smith, Sydney, West Bridgford
Southern, Lewis, Nottingham
Stewardson, A., Newcastle-on-Tyne
Strang, Duncan, Callander
Temperton, Harry, Long Sattou
Thomas, Wilfred John Laib, Begelly
Thomson, Charles Samson, Ayr
Thomson, Thomas, Sedkirk
Thwaite, George Rose, Edinburgh
Tinker, George, Holmfirth
Townley, Tiburtus, Tarporley
Trattles, William Ernest, Whitby
Turner, David, Aechtermuchty
Verrall, Ada, Swanboro'
Walmesley, William Edward, Halifax
Walters, Gwilym J., Treherbert
Warren, Pierce Harold, Derby
Watkins, Ernest Arthur E., Bwlch
Watson, David, Arbroath
Watt, William Hamilton, Glasgow
Webster, Digby, Chester
West, David, Fraserburgh
Whitehead, John William, Burnley
Wiley, Harold, West Hartlepool
Williams, Harold John, Glasgow
Williams, Josiah Thos. D., Bradford
Willson, Harry Briggs, Peterborough
Wilson, G., Newcastle-upon-Tyne
Wilson, W. S., Stratford-on-Avon
Wood, Harry Mayall, Hanley
Wood, William, Uttoxeter
Woodhead, S., Newcastle, Staffs
Woolley, George C., Barton-on-Trent
Wormald, John E., Ladbroke Fort
Yates, Francis Harold, Blackpool
Young, David Aitken, Dunfermline

PLASTER COMBINATION.—It is reported in New York that a combination has been formed amongst five of the leading makers of indiarubber plasters in the United States. The object of the combination is to regulate the prices of the plasters. It is claimed by the manufacturers that owing to the enhanced value of the raw materials they have been manufacturing at low figures for a long time, and the immediate effect of the combination will be an increase in the wholesale prices.

The Winter Session.

SOCIETY OF CHEMICAL INDUSTRY.

LONDON SECTION.

At the meeting on Monday, February 1, at Burlington House, at 8 p.m., Dr. R. Messel in the chair, Mr. ANDRIOLI, jun., read a paper on behalf of his father, who was unable to be present, on "Ozone: its production and industrial applications." The process devised by Mr. Andrioli was described and illustrated in the *C. & D.*, August 5, 1893. The feature of his invention is the employment of serrated electrodes which give multitudinous points for the silent electric discharge, and consequent rapid ozonisation of the air. At Monday's meeting particulars were given of the modifications and precautions required to ensure success on a manufacturing scale, and apparatus was shown in action. The current was taken from the street mains and passed through a transformer on its way to the apparatus. It was indicated that the stream of air passing through tubes containing the electrodes prevents the decomposing action of a high temperature. It was said that in practice 48 grammes of ozone are obtained per indicated horse-power per hour. Various purposes for which it had already been used were mentioned, and also a number of suggested, but not yet tried, applications. In the discussion which followed, Mr. A. G. SALAMON gave some account of his experience in the use of ozone, which was confirmed by Dr. HEHNER, who asked whether the output of 48 grammes per horse-power meant available oxygen or total ozone. Dr. L. T. THORNE said that, although in estimating the quantity of ozone only one-third of its weight was available for oxidation, yet he believed that in some cases the whole of the ozone was available. After some further discussion as to the class of purposes to which ozone, as at present manufactured, could be applied, a vote of thanks to the author concluded the meeting. It was announced that an extra meeting would be held on Monday, February 15, when the discussion on Mr. Dibdin's paper on "The character of the London Water-supply" would be proceeded with.

NOTTINGHAM SECTION.

THIS Section met at Burton-on-Trent last week, when the discussion on "The Commercial Position of Ammonia" was resumed. The speakers referred chiefly to the manual value of the sulphate, and the means which should be adopted to make it better known, but no new suggestion was put forward. After the discussion Mr. JAMES O'SULLIVAN read a note on "Kjeldahl's Process for the Estimation of Nitrogen," and another on "Maltose."

CHEMISTS' ASSISTANTS' ASSOCIATION.

At the meeting of this Association held on January 28, the following paper, by Mr. J. C. HYSLOP, was read by the author:—

POPULAR PHARMACY.

Mr. Hyslop said: Our lot is cast at a time in the world's history when, more than ever, popularity spells success. "Vox populi, vox Dei"—itself but quite a modern adage though in such an ancient dress—conveys an idea which seems to have given the main impetus to everything for nearly a century past. I have long felt, sir, that as to pharmacy, never was there an avocation which, irrespective of times or clime, or local surroundings, stood so fair for popular appreciation, if only cultivated and worked out in a legitimate manner. And in the recognition of this fact lies, I think, the secret of the success of the founders of the Pharmaceutical Society of Great Britain when, nearly sixty years ago, they first gave the craft "a local habitation and a name" somewhat befitting its imperial dignity and universal importance.

From the earliest times of which any record exists the pharmacist has been recognised. He was long known as the "apothecary"—i.e., storekeeper—because in primitive times a keeper of dried or otherwise prepared medicaments to meet the urgency of sudden sickness or accident was the only kind of "storekeeper" required. Food and clothing, and other periodic necessities, were provided straight from

their natural sources as needed by the individual or the family. Hence arose the term "apothecary," the one who was responsible for the superintendence of the "apotheca," or store; and, later on, "druggist," an artist in dried medicaments (A.S. *drig* = dry). This individual was always regarded as an honoured servant of the public; at times somewhat confounded with, at others distinct from, the actual medical practitioner, but always acting in harmony with the physician, and enjoying amongst all peoples, barbarian and civilised alike, a reputation on a level with that of the priesthood.

When at the dawn of the Victorian era it was plainly evident that, so far as concerned our own country, this distinguished individual was in danger of sinking to a condition lower even than that in which the Bard of Avon had depicted him some centuries before, there arose a nucleus of men—the best conditioned of their craft—who, fired with zeal for the timely rescue of their fellows, determined upon a scheme that should arrest his downward course, and lead him back to a position of honour; and, as if inspired with a clear forecast of what an enormous factor public opinion was about to be in the making or marring of success in every line of things, adopted boldly as their motto that watchword of liberty and progress under which we fight to-day, "Habenda ratio valetudinis"—"We must attend to the public welfare."

One who means to go right must keep to the proper definitions of the words he uses. What then is "Pharmacy"? It is not a science, nor a trade, nor a profession; nor yet a mixture nor a compound of these. As our words become better defined our ideas are more refined, industrial activities less wasted, and business more prosperous. Pharmacy is an art—stick to this idea, there is more in it than appears on the surface, much more. It is "the art of choosing, compounding and dispensing medicines." Cherish, I say, this definition; let no sophistry cheat you of it. With the public there is much in a name, and it is to be regarded as a hopeful sign that everywhere the members of the craft seem to be awakening to the fitness of the title "Pharmacist" to designate their calling. This is a word that has come to stay, and to flourish amongst us: an expressive one, not too long and thoroughly comprehensive. He who practises the art of "pharmacy" is a "pharmacist," and his place of business is a "pharmacy." This is on all fours with what has long been recognised with respect to another artist and a sister art: the art of "surgery." The artist in "surgery" is a "surgeon," and the place where his business is carried on is known as a "surgery." Surely in looking back upon the history of pharmacy in Great Britain for the last fifty years we cannot fairly be dissatisfied with the progress that has been made in the amelioration of our lot. From 1840 to 1852 there was an immense amount of prejudice and heavy obstruction to be overcome before the Legislature would sanction a Bill to give a distinguishing name to those amongst us who were wise enough to wish for it. From 1852 to 1863 obstruction became active rather than passive, and attempts to check the cause of progress were made again and again under various pretexts, which fortunately had to come to grief because of their hollowness. However, a partial success awaited these when the decisive action was fought out in the lobbies of the House of Commons, which led to the passing of the Pharmacy Amendment Act. The result was a compromise, or we should have got nothing at all. The proposed Bill that would have incorporated the whole trade into one recognised body with one title, and retained the Minor examination as one necessary for the assistants' qualification only, was degraded into a Poison Bill, and made or maintained the old rift, the two classes being still recognised as Ph.C. or C. and D., according as one chose to pass the Major or rest content with the Minor. What seems to-day the chief desideratum is that, recognising these lessons from the immediate past, we should close up our ranks, discard agitation that is started from time to time on minor issues, and see to spreading abroad amongst the laity a more accurate knowledge as to who and what we are, for what sort of service it is that we are compelled by law to pass an onerous and an expensive course of study and a series of examinations in various branches of knowledge before being allowed to practise as pharmacists. There are signs that the chemist, as he is still called, is rising in popular

estimation. Let him but stand upon his own proper dignity and endeavour to dispel the ignorance that still lurks chiefly amongst the effeminate portion of mankind—male and female alike—teach them by precept and by practice that it is for their convenience and welfare that he has been trained and has had set upon him the hall-mark of authority by the Legislature; in small matters as well as in greater ones let him keep this aspect of his position before them unalloyed by petty trading matters, so as to show that he is not a universal competitor with grocers and drapers, and barbers and oilshop-keepers, and all the rest of tradesmen; then the next parliamentary move may be expected to be a more satisfactory one than those that have gone before.

The business of a pharmacist is entirely of a retail character. The B.P. is a compilation of data by which we are to diagnose the genuine character of the articles of materia medica which we are compelled to obtain through wholesale sources, and of formulae to direct us as to the compounding in small quantities of those that we are expected to prepare for ourselves. A neglect of these considerations has often landed men in difficulties, and tends to bring upon some of the formulae very unjust criticism. For example, a discussion is started in the journals on liq. strychnine hyd. After a lively battle for some weeks it leaks out that the original objector was a wholesale manufacturer, who found that a formula given to direct a pharmacist to make 2 oz. for his own dispensing-counter was not quite applicable for the preparation and storage of a hogshead. We often see in print the terms "retail pharmacy," "wholesale pharmacy," "high-class pharmacy," and so on, which is all rubbish. Pharmacy can be neither high nor low; it is always more or less pure or mixed—mixed often with incompatables. "Wholesale pharmacist" is a misnomer, "retail pharmacist" pleonastic. The word "pharmacy" is not an old-fangled, ugly one, but a real beauty, in its full health and vigour, as is the art itself to which the word applies. We are responsible for the maintenance of its health and loveliness. It follows from what has been said that a pharmacist must be free, uncast in any special mould. This brings us to the subject of education, another idea about which there exists a sad bungle of middleheadedness at the present day. To fit us for the business of life we are compelled to acquire a certain large amount of general knowledge—wrongly termed education, for education is not the acquirement of knowledge—and afterwards we go in for a more accurate knowledge still of various sciences around which the art of pharmacy revolves, or which touch its widening circumference at various points. All this tends to education; but education itself is the outcome of these advantages, the resultant of the various forces thus gathered up to act and react in our destined sphere—to adapt ourselves harmoniously to all our environment. So that bugbear of being "too highly educated," as it is sometimes foolishly put, melts into thin air. There is no such a thing as being "highly educated;" it is proficiency or non-proficiency that is involved in the idea of education; there is nothing high nor low in education, any more than in the art of pharmacy. Strict or lax, good or bad, are the only terms applicable.

Now a few practical matters. Good pill-making and neat powder-folding will ever serve as the outward and visible sign of the pharmacist's inward grace in the eyes of the British public. 'Tis piteous to see the badly-wrapped seidlitz-powder, the loose 1*℥*. boxes of pills, the restless pharmacist merging into the restless shopkeeper, handing over the counter his packages of drugs bought by the gross and folded in a loose and clumsy manner by no one knows whom. Epsom salts procured ready packed are never clean, and as people usually want a dose only for their 1*℥*. the packing of these at one's own dispensing-department will become one of the most economical-successful advertisements that one could wish for. So may a 1*℥*. box of pills suffice to carry one's name far and wide if added to a neat and not too wordy a label, and the contents be what in honour's name they ought to be; so got np, I mean, as to proclaim its own peculiar nature as far as possible. Comp. rhnbarb pills will always command a ready sale everywhere if the smell of the English oil of peppermint pervade them, and if they are not either too soft nor too hard; leave out half the proportion of glycerine from the B.P. formula and prepare *sec. art.* No pill can beat this in the estimation of all classes. There is

another popular pill, the pil. rufi; this will never fail to command a good sale if only the fair patient can see the nature of what she is taking, and this is accomplished best by coating them with Martindale's varnish (gum junip. 1 part, absolute alcohol 2 parts). They must be prepared at your own pharmacy. Follow strictly the B.P., but dry the saffron yourself and powder it in a warm mortar. Use first-class myrrh and reduce this to a coarse powder, and if good friable aloes socot. cannot be got use the watery extract, which is not so liable to give with thermal and hygroscopic change. Keep the "species" ready mixed in a condition of coarse powder, and when required to prepare a few dozen use, instead of treacle and glycerine, the smallest possible quantity of simple syrup, beat into a hard mass, to be at once divided into the requisite sized pills and coated in the manner described in the Extra Pharmacopœia, page 352. If a chemist means to secure the popular favour he must well cultivate the art of pill building and decorating. The less he meddles with sugar-coated or pearl-coated productions the better, for, except in special cases, his coverings should be restricted to three—the merest sprinkle of lycopodium, silver-leaf, or sandarach—*i.e.*, gum juniper varnish. If the sale of pills increases so much that it becomes inconvenient to prepare them on the premises, the wholesale pill-manufacturer may be taken advantage of, but if you fall into the trap of discontinuing the honest-faced article for the white-faced marbles, that look and smell alike, and that often will keep for ever in a patient's inside as well as in your own drawers—they are baked so hard in the manufacture—your prosperity will dwindle away, with no hope of recovery. The lotions and other external applications should be well attended to. Remember that what is intended to be applied to an open wound ought to be every bit as unadulterated as what passes into the stomach. Hence all lotions, for patients whether rich or poor, should be prepared with distilled water good and fresh, as mixtures should. Carbulated oil must be prepared with pure oil of olives and pure anhydrous carbolic acid. Ointments must be prepared of the best ingredients and never stored in old porcelain pots, the insides of which are discoloured by long usage, nor when being made, neglected to be kept properly stirred until they are really finished. For these amongst other reasons, we should prepare all the ointments we possibly can, and those that must be purchased ready-made should be carefully scrutinised, both because the public will keenly judge these if we do not, and also because of the carelessness amounting oftentimes to fraud allowed in their preparation by unskilled hands sheltered by the vulgar old notion that they are only external applications.

To gain popular favour it is necessary to keep a good all-round stock of packets of all things in general request that will not deteriorate. But it is unwise to keep liquid preparations, especially oils, and also dry goods ready packed, for people somewhat like as a rule to see the attentive gingerly man filling, corking, and folding before their eyes; besides, it's what grocers and stores cannot do, and we explain to the people parenthetically the importance of all these being freshly bottled, and when we have a chance we show them the effrate of magnesia all gone wrong because it was corked up tight in a bottle that had an infinitesimal amount of moisture in a crevasse at the bottom, and you can explain blandly that of course this was not handled by a chemist.

But there are many points arising from long practice in a favourite calling that tempt one to be too diffuse. So let us hear the conclusion of the whole matter. It is for us, as business men, to educate the public to a fairer estimation of our relations with them. There is, as Dr. Rentoul has so well put it, "A greedy public, with their debauched truckling for everything cheap, which should not be pandered to." But it is another, and a better, public that we are called upon to woo in the interests of pharmacy. As a business man the pharmacist can be quite as 'cute and as accurate in the keeping of his accounts as any man, without climbing down to the level of a mere tradesman. He is not a shiftless man, but one of ready resource, with fixed principles of conduct, which he will find means of some kind for carrying out. Is he somewhat lamb-like or sheepish in the eyes of many? Well, let them look to it, for he can cultivate, if needs be, the cunning of the fox or the wisdom of the serpent, and it is only by turning traitor to his true con-

nections, and becoming thoroughly asinine, that he runs the least risk of being devoured by the lions and tigers of commercial rapacity.

In the course of the discussion that followed the paper (amid many warm compliments) the PRESIDENT (Mr. C. Morley) said "pharmacist" was no doubt a first-class name, but at present only Ph.C.'s can legally use it. The author's remarks upon the proper application of terms were an amplification of Mr. Brudenell Carter's address to the pharmaceutical students—views which he (the President) fully endorsed.

Mr. S. SUMMERS thought "druggist" a more popular title than "pharmacist." Many call their establishments drug-stores because the name is so much in favour with the general public.

Mr. GEORGE ROE thought it a pity the term "drug-store" should be applied to a pharmacy, because it was a title which could be used by unqualified people.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

THIS Association held a meeting on Wednesday, January 27, at which two papers were read—one on "Sponge," by Mr. W. H. Andrews; and the other on "Acetylene," by Mr. W. Howes. The paper on "Sponge" gave a description of the natural history of the sponge. The author said there is a distinction drawn in shops between "bleached" and "unbleached" sponges. As a matter of fact, all but a very few, used for stable and suchlike purposes, are bleached. The so-called unbleached sponge (in which there is a great deal of sand) is treated on the spot at the fisheries. The gelatinous matter is first squeezed out. It is then a dark-brown, dirty-looking thing, with more or less ferruginous red stains about it, especially on the under-side, where it has been attached to the bed. It is then subjected to a bath of sulphuric acid, which turns it a light brown; then washed in sea-water, sprinkled freely with sand, packed in bales, and shipped. The "bleached" sponge comes over in the virgin state squeezed flat in bags, and are first soaked in a solution of permanganate of potash, then wrung out by hand several times in a solution of hyposulphite of soda and hydrochloric acid, passed through a wringer, dried in a hot chamber, sorted, and trimmed. They are then ready for the market. There appears to be no record of the date when sponges were first brought into use. Pliny and Aristotle mention them, and sponge is referred to in the Bible in the account of the Crucifixion. Mr. Andrews stated that he was indebted to Messrs. Cresswell Brothers & Schmitz for a great deal of information on the subject.

Mr. HOWES, in his paper on "Acetylene," gave a practical illustration of the preparation of the gas from calcium carbide and water by means of the ordinary generator in use. He said that, although the gas had been known to science since 1836, it was only quite recently that its use as an illuminant had become a commercial possibility. Its probable employment as an illuminant suggested the possibility of a large future for the manufacture. Photography alone offered a wide field for its use, not only for use in the lantern, but for portrait purposes. He had himself obtained some very good negatives by an "acetylene" light, using, of course, very rapid plates. There had certainly been a few fatal accidents in attempting to compress the gas, the heat generated in so doing being sufficient to explode it; but he claimed that local acetylene-generators, similar to the one he had then in use (on a similar principle to the large coal-gas gasometers), were practically free from danger.

At the conclusion of the lecture a lantern-display was given, using the acetylene light, with great success.

EXETER ASSOCIATION OF CHEMISTS AND DRUGGISTS.

At a meeting of this Association, held on January 28, under the presidency of Mr. J. Hinton Lake, the HON. SECRETARY (Mr. P. F. Rowsell) reported that at the recent annual meeting it was proposed that the Association should elect an honorary solicitor, and the name of Mr. C. R. M. Clapp was mentioned. It was thought desirable, as many other associations had their honorary solicitors, that they should have theirs. Mr. Lake and himself had waited on Mr. Clapp, who expressed

his willingness to accept the post if elected by the Association. Mr. Clapp, if elected, would give them advice on any points of the Pharmacy Act; and in the event of a case being taken up he would naturally be instructed.

On the motion of Mr. J. BARTLETT, seconded by Mr. E. LEMMON, Mr. Clapp was elected unanimously.

In consequence of a suggestion contained in a letter from Mr. W. S. Glyn-Jones, the following resolution was passed:—

That this Council regret to notice the action by the Charles A. Vogeler Company in relation to the chemists of Bradford, and recommend the various local associations connected with the P.A.T.A. to convey to this firm their disapproval of the action they had taken.

THE ASSOCIATION DINNER

was held immediately after the meeting. The President (Mr. J. Hinton Lake) was in the chair, and was supported by the Mayor of Exeter (Mr. R. Pople), the Sheriff of Exeter (Mr. T. Wilson), Mr. A. W. Clayden, M.A., F.C.S. (Principal of the Exeter Technical and University Extension College), Mr. T. Linscott, J.P., Mr. Geo. Breeze, J.P. (President of the Plymouth, Devonport, Stonehouse and District Association), and Mr. J. Cocks (Hon. Secretary of the Plymouth Association). Mr. P. F. Rowsell (Hon. Secretary) occupied the vice-chair, and there were also present Messrs. E. Lemmon, J. Bartlett, W. H. Bulley, T. C. Milton, Wynne Tighe, J. W. Lake, H. W. Gadd, E. F. Stone, D. Reid, E. H. Dyer (Honiton), W. H. Jackson (Crediton), E. E. Jackson (Crediton), W. Wippell, H. J. Dalgleish (Ford, Shapland & Co., London), A. D. Breeze (Plymouth), S. R. Pote (H. Silverlock, London), Layman (Messrs. Wright, Layman & Umney, London), H. J. Stanbury, Ware, Robson (Tiverton), Wilson (2), and C. R. M. Clapp.

A number of letters regretting inability to be present were read, including one from Mr. Alderman H. Gadd, J.P. (ex-President of the Association).

After "The Queen," the Chairman proposed "The Exeter Association of Chemists and Druggists." The objects of the Association, he said, were, shortly, sociability, trade, education. An Exeter branch of the Pharmaceutical Society was founded in 1845, with Mr. Tanner as President, for the purpose of forming a library disseminating scientific literature, and, if possible, giving lectures. It had at its start about forty members, including the well-known pharmacists, Messrs. Palk, Milton, Kuott, Stone, Brenridge (father of the Secretary of the Pharmaceutical Society), &c., and comprised members living at Teignmouth, Dawlish, and Exmouth. That Association, of which he had the honour of being a member, continued until 1884. It recently reappeared under its present name. He much regretted that their ex-President (Mr. Gadd) was absent that night, owing to a family bereavement. He regretted it especially as it was his particular desire that this gathering should take place. Manchester boasted of the oldest Association, but he was of opinion that Exeter was very close in the running. Having traced the work done by the old institution, Mr. Lake referred to the classes and laboratories in the Institution under the superintendence of Mr. A. W. Clayden, than whom it would be impossible to find a more talented, painstaking, or genial head. Through the representation of the Exeter Association, Mr. Clayden had arranged with the Museum Committee to form classes in pharmacy and materia medica. Mr. Ware, a Ph.C., and a gentleman of considerable talent, had been engaged to teach the embryo pharmacist botany, chemistry, pharmacy, and materia medica. A grant of money was generously made last year by the Council of the Pharmaceutical Society which enabled the local Association to purchase a handsome cabinet and glass vessels for containing specimens. The specimens which were now in the collection were generously contributed by their ex-President (Mr. Gadd, J.P.). Mr. Holmes, Curator of the Museum at Bloomsbury Square, had presented a very valuable collection of botanical specimens. Pharmacists, therefore, had now in Exeter a magnificent building at their service, and classrooms and laboratories fully equipped in every respect. Nothing was wanted but students. He would entreat them to give their pupils the necessary time, and urge upon them the advantage of acquiring the needful technical training for passing the Minor examination. Mr. Gadd, Mr. Stocker, and himself, desired to start a prize fund at the Institution for prizes for students in pharmaceutical subjects. Mr. Lake

also gave some reminiscences of the Pharmaceutical Conference at Liverpool last summer, and referred in complimentary terms to the very influential Association of their "big sister," Plymouth, with which they aimed to work in co-operation.

The toast was responded to by Mr. LEMMON and Mr. BARTLETT.

Mr. P. F. ROWSELL next gave "The City of Exeter." Since he had been in Exeter he was sorry to say that a great deal of the ancient architecture which Exeter possessed had been destroyed. He hoped the City Council would do all they could to prevent such vandalism in future. The trade and commerce of Exeter were not going back, and they hoped that before many years Exeter would become a larger distributing centre.

The MAYOR and SHERIFF responded in appropriate speeches.

Mr. CLAYDEN, who was also called upon, gave full particulars of the work of the Institution which he directed, and especially of the pharmaceutical course.

Mr. T. LINSKOTT, J.P., also responded to the toast.

Mr. D. REID proposed "The Visitors," and emphasised the importance of organisation.

Mr. GEORGE BREEZE, J.P., in a stirring speech, urged that associations of chemists and druggists were much needed at the present time, when they could not but feel that the trade was being terribly crippled by various opposing forces. Within the past three or four years a large number of associations had been established, and he found there were now between forty and fifty local associations of chemists and druggists. He looked upon this as an omen of good. Those associations enabled them to talk over matters affecting the trade and act wisely and discreetly. Not only that, they enabled them to give facilities for the education of the rising members of their trade. Among the chemists of Plymouth, Devonport, and Stonehouse, as in other towns, little jealousies had existed, but they found that the association was gradually and steadily wiping them out, and they now endeavoured to benefit each other. They had an association at Plymouth about twenty years ago. They started with the best intentions, but they drew the line a little too tight. They made it exclusively of an educational character. In their present Association, which was now about four years of age, they had studied to combine the educational with the social, and they found that the social element was a very important element. He urged the necessity of every chemist joining the Pharmaceutical Society and becoming a member of the British Pharmaceutical Conference. With all due respect to the P.A.T.A., which was doing a good work, he should be sorry to see proprietary articles, &c., take the lead in a chemist's business. It was a secondary matter, and therefore he thought it was important they should give every assistance to the Pharmaceutical Conference, with a view of securing greater combination and publishing formulæ from time to time, by which they could send out preparations which would always be of a uniform character. He also advocated the claims of the Benevolent Fund.

Mr. J. COCKS also replied. He suggested that they might arrange an outing next year—say at Teignmouth or Dawlish—so that members of both Associations might spend the day together.

The CHAIRMAN said he had had a similar suggestion from Mr. Park, and stated that he would do all he could to further the idea.

Songs and recitations were given during the evening by MESSRS. Wynne Tighe, H. W. Gadd, J. W. Lake, A. Guest, and H. J. Stanbury.

LIVERPOOL CHEMISTS' ASSOCIATION.

THE forty-eighth annual meeting of this Association was held on January 28, Mr. A. C. Abraham presiding. For the new Council, Messrs. J. Bain, A. S. Buck, R. C. Cowley, Ed. Davies, C. J. S. Thompson, T. H. Wardleworth and T. S. Wokes, were re-elected, and Mr. P. H. Marsden was elected for the first time.

THE ANNUAL REPORTS

stated that the papers read and miscellaneous communications during the session had been of exceptional interest and value. An eleventh edition of the price-list had been published, and

221 copies had been sold. A curriculum for pharmaceutical students had been introduced at University College, Liverpool. The meeting of the British Pharmaceutical Conference in Liverpool in July was referred to. The financial report showed a balance in hand of 4*l.* 7*s.* 11*d.*

PRESIDENT'S ADDRESS.

In his address Mr. ABRAHAM said he had the honour to occupy the chair as President ten years ago. Since then, he said, Liverpool had obtained a new water-supply, which, in spite of many dismal prophecies, had proved very satisfactory. Its action upon the lead pipes was an objection made by one of their members, Mr. Edward Davies or his son. This had been entirely met by the admixture of a small quantity of hard water, and the water now supplied has practically no action whatever upon lead, or perhaps it would be more correct to say that its action is such as to coat the lead and protect it from further action. The action of water upon lead pipes is a somewhat complicated and interesting problem. For practical purposes it may be considered to be due to one of two causes—viz., the action of humus acids and the direct solution of the lead as hydrate by the water. As evidence of the protection afforded by sulphates, Mr. Abraham mentioned that his late father was particular to always use soft water for washing, and, having removed to a house where the supply of rain-water was kept in a leaden cistern, he found it considerably contaminated with lead. He (the speaker) suggested the addition of a little sulphate of soda to the water in the cistern, and was surprised to find that that addition, even at rare intervals, was quite sufficient to coat the lead in such a manner as to render it practically unacted upon by the water. The gas of Liverpool has not given such universal satisfaction as the water. Stimulated, no doubt, by the laudable desire to supply for illuminative and heating purposes a cheaper product than hitherto, the Liverpool Gas Company has tried the experiment in the Garston district of manufacturing on a very large scale carburetted water-gas. Correspondence has recently taken place in the local newspapers respecting this product and the fatal effects which it has produced. Water-gas is far from being a new product, but its use as an illuminant has become practically possible owing to the ease with which it is rendered luminous by partially saturating it with the lighter petroleum-products. Its production is simple, as it is made by passing steam through coke heated to a temperature as nearly as possible constant. The steam suffers decomposition, the oxygen takes up half the quantity of carbon which is required to saturate it, and forms the dangerous gas carbonic oxide, and the hydrogen is set free. There are, of course, other compounds present—viz., carbonic acid and nitrogen, &c.; the former may be present in large quantities if the temperature of the carbon is not maintained at the right point. The gas so produced is, of course, practically non-luminous, and to render it luminous it is saturated more or less completely with petroleum spirit. Roughly, this is the process adopted, and gas may be so made as to have a luminosity fully equal to, or above, the high standard of Liverpool gas. But a number of cases of poisoning have resulted from the use of this water-gas; but those fatal accidents have been caused by water-gas pure and simple, and not carburetted water-gas such as has been supplied in the neighbourhood of Liverpool. Of course, the great danger of pure water-gas is that it is odourless, but when carburetted by means of these petroleum-products it is far from odourless, but not so "smelly" as coal-gas. In this, of course, lies one of its chief dangers. Even, however, were its smell as strong as that of coal-gas, it would be dangerous in quantities of one-fourth or one-fifth the quantity of coal-gas on account of its containing four or five times as much carbonic oxide, to which both practically owe their poisonous property. For heating, water-gas is very inferior to coal-gas, having less than half the heating-power. There is one point in favour of water-gas, the quantity of oxygen required for the combustion of pure water-gas being little more than one-third, and the quantity of carbonic acid produced is about 20 per cent. less. These proportions are, of course, considerably altered by the introduction of hydrocarbon oils. The water-gas is found to clog the burners. On the whole, Mr. Abraham came to the conclusion that its substitution for coal-gas is a retrograde step, and one which, in Liverpool at least, will have to be retraced. The large

extension in electric lighting is an immense step in sanitation. The advantage of having a first-rate illuminant without any products of combustion must be of the greatest importance in many of the underground and badly-ventilated offices with which Liverpool abounds.

The President concluded his address by references to the establishment of a complete course of pharmaceutical education at the University College, by urging the members to make the forty-seventh session of the Association a success, especially by miscellaneous communications, and by a loyal allusion to the sixtieth year of the Queen's reign.

NEWCASTLE CHEMISTS' ASSOCIATION.

As briefly reported in the Supplement of our last week's issue, a meeting of chemists of Newcastle and district was held on Wednesday, January 27. Mr. T. Maltby Clague, the local Secretary of the Pharmaceutical Society, was voted to the chair, and about thirty chemists were present. Letters of apology for absence and expressions of sympathy with the movement were read from Messrs. B. S. Proctor, G. Weddell, Gibson (North Shields), Riddle, Duddridge, Foggan, and W. Sarsfield, J.P. Congratulatory letters were also read from Mr. C. J. Park (Plymouth), Mr. Hutton (Leamington), Messrs. Waddilove and Pickard (Bradford), and Mr. Bell (Sunderland).

The CHAIRMAN pointed out the desirability and necessity of association, and indicated his view that only by self-denial and hard work on the part of officials and members could success attend their efforts.

Messrs. DUNCAN, OWEN, ROBINSON, NAPIER, and others spoke. Mr. KERSE referred to previous efforts to form associations in Newcastle and the reasons for their non-continuance. Ultimately, on the motion of Mr. LANCELOT ARROWSMITH, seconded by Mr. ROSE, it was resolved to form an association to be called "The Newcastle, Tyneside, and District Chemists' Association," for the advancement of scientific education and trade-matters and the promotion of social intercourse. Resolutions were passed determining the basis of membership, and the officials and committee, as reported by us last week, were appointed.

PLYMOUTH AND DISTRICT CHEMISTS' ASSOCIATION.

At the quarterly meeting of this Association, held at Plymouth, on January 27, the President, Mr. George Breeze (Devonport), in the chair, it was stated that the number of members of the Association was now 126. The SECRETARY (Mr. James Cocks), in a short paper, introduced the subject of

"HOW TO AUGMENT THE BENEVOLENT FUND."

That the fund needed augmenting was taken for granted by the writer owing to (1) increase of applicants for relief; (2) increase of amount given to each one elected; (3) subscriptions must have fallen off owing to the present state of trade. Whilst the temporary deficit had been made up, it was time to find a means of preventing a necessity for special appeals. His idea was to call in the aid of the lady-friends of members, to get them together over a "five-o'clock tea," and let them arrange among themselves as to the manner in which they should set to work. He would suggest a conversazione, a concert, or even a bazaar. It would be something to give the wives and daughters of chemists an interest in the welfare of pharmacy by helping those who had, through stress of circumstances, been unable to weather the storms of adversity. A lengthy discussion followed, in which several present looked upon the advent of ladies with suspicion, and thought the idea of appealing to the public, through them, cast a reflection on their own liberality, considering that members should be asked to double their subscriptions, if small, by the local secretaries. Others present quite fell in with Mr. Cocks's idea, and were desirous of seeing the ladies take a more prominent part in affairs pharmaceutical. Opinion being so much divided the subject was adjourned to the next meeting.

C.A.M.W.A.L.

At a previous meeting a discussion was raised by Mr. J. MAURICE (Plymouth) on the advisability of getting

C.A.M.W.A.L. to establish a depôt and factory at Plymouth. The subject was again brought forward by him, and it was pointed out that from inquiries he had made meanwhile in the district, there was ample scope for a large mineral-water trade to be done. The necessary guarantee of a 1,000*l.* trade (exclusive of syphons) could certainly be found. He suggested that a circular be sent to all chemists in South Devon and Cornwall, as a feeler. Ultimately a committee was formed, consisting of Messrs. J. Barge, J. Cocks, F. Maitland, J. Maurice, and C. J. Park, to have an interview with Mr. Groome.

P.A.T.A. AND FEDERATION.

Mr. C. J. PARK (Plymouth) read a letter from Mr. W. S. Glyn-Jones, in which he drew attention to the present good position of the P.A.T.A., and hoped that the chemists of Plymouth would support them well in their projects. Mr. Park, in the course of his remarks, spoke of the Federation-scheme of Mr. Foulston and others, whose letters had been published in the journals. He pointed out that retail-chemists should endeavour first to make the P.A.T.A. a success by joining in large numbers, so as to induce proprietors to protect their articles. Not until they failed in that should they start a Federation-scheme to run preparations counter to those not protected. If any attempt were made just now to start such a scheme it would tend to injure the P.A.T.A. in the eyes of proprietors who are waiting to see which way the wind blows, and also may appear as an alternative scheme and prevent retail-chemists from joining the P.A.T.A. The following resolution was unanimously carried:—

That this Association views with satisfaction the work already accomplished by the P.A.T.A. It affirms its continued confidence in its aims, and expresses the hope that retail-chemists will accord it greater support in the immediate future.

CARRIAGE OF PARCELS.

A new cheap rate of "Parcels Delivery" from London to Plymouth and district for members of the Association was mentioned by Mr. J. H. BAILEY. He had received tenders from two "express" firms offering—with a guarantee of at least twenty members—to deliver parcels under 14 lbs. daily at the rate of 2*s.* 6*d.* per month to each chemist. It was agreed to accept the terms of Messrs. Curtiss & Sons. Empties were left as at present to be returned by one of the railway companies.

COMMITTEES.

The appointment of special committees to deal with trade and educational matters being considered necessary, the following were elected:—

Trade: President and Secretary, and Messrs. Bailey, Martin Johnson, Park, Roper, and C. U'Ren. Educational: President and Secretary, and Messrs. Buckley, J. R. Johnson, O. A. Reade, Turney, and R. F. Roper.

EDINBURGH CHEMISTS', ASSISTANTS', AND APPRENTICES' ASSOCIATION.

The fifth meeting of the session was held on January 29, Mr. James McBain, President, in the chair. The following paper was read:—

ESTIMATION OF MERCURY IN AMMONIO-MERCURIC CHLORIDE.

By JOHN R. THOMPSON.

Mr. Thompson reported the examination of five samples of ammonio-chloride of mercury obtained from different sources. He found the following percentages of Hg estimated as Hg₂Cl₂ in the five samples respectively:—A = 71.53, B = 71.56, C = 73.05, D = 75.01, E = 76.80. The B.P. standard is 77.5. He found that the method of estimating the mercury as a metal was open to error on account of the loss in drying the metallic mercury. To reduce it to sub-chloride Hg₂Cl₂ he dissolved a weighed quantity of ammonio-mercuric chloride in hydrochloric acid in a precipitating beaker. To this an acidified solution of potassium hypophosphite was added, when a precipitate of Hg₂Cl₂ was almost immediately thrown down. This was set aside for twelve hours, then washed with hot water till free of chloride, pressed, dried at 100° C. till constant, and weighed.

Mr. GEORGE SENTER next contributed an exhaustive and interesting lecture on "The Chemistry of Sugars." Mr. Reid was elected Assistant-Secretary in room of Mr. J. D. Sinclair, who had been elected Secretary.

MIDLAND CHEMISTS' ASSISTANTS' ASSOCIATION.

At a meeting of this Association held on Wednesday evening, Mr. H. S. SHORTHUSE, F.C.S., read a paper on

THE PHARMACOPEIA ON CRYSTALLISATION.

He had chosen this subject, he said, because the directions in the Pharmacopœia for the crystallising of chemicals were in many cases very brief, and the results obtained did not compare favourably with the crystals produced under more precise conditions. If crystallising chemicals was to be included in the B.P. the directions should be such as would enable the pharmacist to produce crystals in a scientific manner. A crystal he defined as a body of symmetrical form bounded by plane surfaces produced by separation from solution by the solidification of a fused mass, or by sublimation. He would confine his remarks chiefly to crystals produced by separation from solution. Eleven different methods for the production of crystals were noted in the B.P. But nothing was said as to the sort of vessel they were to concentrate in, or of obtaining a clear solution prior to concentration; to what density at a stated temperature the solution was to be evaporated, with one exception—viz., lithium-citrate; if it was necessary to syphon off or filter prior to crystallisation, and of what material the vessels should be composed. No temperature was mentioned, except that a heat of between 212° and 233° F. was the heat recognised in the B.P. for a water or sand bath respectively. In the case of lithium citrate they were directed to evaporate by steam or sand bath until the product had a specific gravity of about 1.23. In that case only were they directed to use the heat of the sand or steam bath, so he thought they were justified in assuming that in all other cases of concentration they were at liberty to use a direct flame or fire, which in some cases, at least, could not be used with equal advantage. The directions for sodium phosphate were most vague, and should either be entirely omitted or rendered practical. He suggested the following form of expression as a general model:—"Decant, syphon, or filter the solution, using ——— to render the filtrate bright, or using a ——— filter; concentrate in a ——— dish, pan, or beaker. &c., by the aid of steam or sand bath, or open flame, until the solution has a specific gravity of ——— at about ——— temperature; filter, decant, or syphon, or allow to stand in dish and crystallise into ——— of either porcelain, earthenware, lead, &c."

ABERDEEN JUNIOR CHEMISTS' ASSOCIATION.

Mr. HAMBLY, F.I.C. (Lecturer on chemistry at Robert Gordon's College, Aberdeen), gave a lecture to this Association on January 29 on "Soap-bubbles." There was a good turn-out of members. Mr. James Sim, chemist, Bridge Street (honorary member), was also present. The chair, as usual, was occupied by Mr. Leslie. Mr. Hamby first explained the tension of the surface of liquids, the elasticity of soap-films, and showed on the screen the different colours of the soap-film, appearing in strips, which, on being subjected to a draught, moved in all directions. Some bubbles were blown with the mouth; others were filled with different gases, light and heavy. One bubble was filled with a mixture of light and heavy gases, which floated about for some time at the same level. Another was filled with a light gas, and a wire ring attached, which was carried to the roof like a balloon. Finally, Mr. Hamby filled a bubble with a mixture of hydrogen and oxygen, and applied a lighted taper; it exploded with a loud report.

DAMAR RESIN.—Glimman has examined a commercial variety from Batavia supposed to be derived from a *Dipterocarpaceous* plant and found it to yield dammarolic acid, $C_{15}H_{27}O_3(OH)(COOH)_2$; an α -dammar-resene, soluble in alcohol; and β -dammar-resene, insoluble in alcohol, but soluble in chloroform.

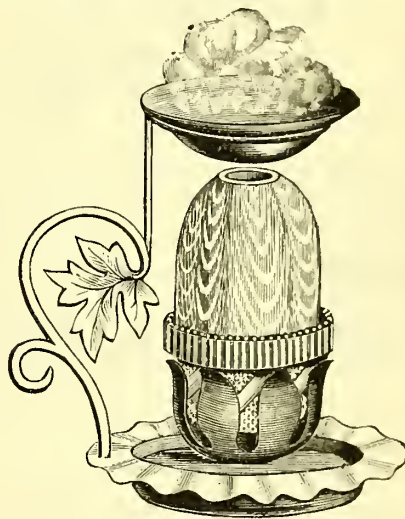
Trade Notes.

As supplementary to the information given in our article on company chemists last week, it may be stated that Lewis & Burrows (Limited) have at present fourteen drug-stores in the north and west of London. They will shortly open a new one in the vicinity of Kentish Town.

MR. HARVEY, the proprietor of Dr. Mackenzie's arsenical soap, now makes a soap exactly similar to that but avowedly free from arsenic. He makes the arsenical soap still, but to those customers who prefer to have the same article but without any arsenic Dr. Mackenzie's complexion toilet-soap may be commended.

IN a note on page 155 regarding the advertisements of Mr. John Milne and Messrs. John Moss & Co., we refer to "the last" instead of the second page, the advertisements being as distinct as the firms are. By an oversight two paragraphs were made one, the alphabetical juxtaposition of the names Milne and Moss favouring this.

CLARKE'S PYRAMID AND FAIRY LIGHT COMPANY (LIMITED), of Cricklewood, N.W., have now opened their showrooms at 67 Aldersgate Street, E.C. Tuesday was opening day, and when the *C. & D.* representative called he found all descriptions of the Fairy lamp burning brightly. The pretty effect of these lights is much enhanced by the exquisite colours of the shades. A novelty which the company have recently introduced is a photographic lamp, fitted with a deep ruby shade and specially intended for burning the "Fairy-Pyramid" lights. It is $4\frac{1}{2}$ inches in height and can readily be taken to pieces and packed in small compass. The lamp retails at



2s. 6d. complete. A cheaper one is also made. Another novelty is the Pyramid Vaporiser, which is a combination of a night-light and vaporiser, a metal support with bath-attachment being fixed above the lamp. Once the vaporiser is started it practically needs no attention for nine or ten hours, according to the light used. The vaporiser is made in copper or ornolu, and the shades can be had in various colours. Mention should also be made of the "Fairy" inhaler, bronchitis-kettle and food-pannikin, all of which can be used in combination with the nursery-lamp. The "Burglar's Horror" and other specialties are too well-known to need description here. Tuesday and Friday each week are to be set apart as exhibition days, when the rooms are lit up. Chemists who visit the City on business should look in.

SIMPLE METHOD OF DRYING BOTTLES.—The *Scientific American* recalls the old method of drying bottles by shaking with an ounce or so of white mustard-seeds and rotating briskly. It serves very well, but in our experience the seed should be perfectly clean.

GOLD MEDALS 1884-1885-1886-1888

"SANITAS" TRADE MARK.

DISINFECTANTS

"SANITAS" EUCALYPTUS PREPARATIONS.

Kingzett's Sulphur Candles and Sulphugators,

Kingzett's Drain Testers,

Preserved Peroxide of Hydrogen,

Mercuric Bactericide, Eucalyptus Oils.

L. G. B. Corrosive Sublimate

Permanganate of Potash

Carbolic Acid

Soluble Pellets.

Okol and "Creocide" Fluids and Powders; Chloride of Zinc; Carbolic Fluids, Powders, Acid, and Soaps; Soluble Carbolated Creosote; Moth Paper; Weed Destroyer, Sheep Dips, &c.

THE SANITAS CO., LIM.
BETHNAL GREEN, LONDON, E.

ELLIS'S "Well charged with gas, and in every respect of the very best quality for drinking."—**PERCY F. FRANKLAND, B.Sc., F.O.S.**

TABLE WATERS

"Typically Perfect."
—Medical Press.

SOLE ADDRESS—

[1]

R. ELLIS & SON, RUTHIN, NORTH WALES.

London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

APIOL & STEEL PILLS

For Female Irregularities, &c.

Price 4/6.

PROPRIETOR—

MARTIN, Pharm. Chemist, SOUTHAMPTON.

WHOLESALE—

Edwards, Sanger, Barclay, Sutton, and Butler & Crispe.

REDUCTION IN PRICE.

HORA'S Howards' Seidlitz Powder.
English Tartaric Acid.
Hand-weighed.

P.B. SEIDLITZ
POWDERS

PERFECTLY FOLDED.

4/3 per Gross.

47 MINORIES, LONDON.

JOHN MOSS & CO.'S

PERFECTED "GALEN" ELASTIC CAPSULES.

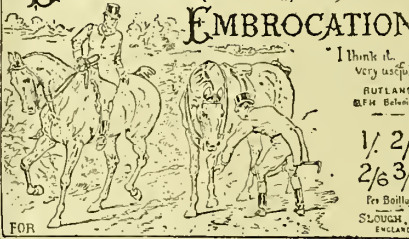
Elegant in appearance and shape. Free from taste or smell. Do not pit. Readily soluble. Quite full. Contents pure and of the highest quality.

IN BULK OR BOXES.

Customer's own Name and Address on Labels if desired.

Apply for Samples and Prices before Buying elsewhere.

GALEN WORKS, WILSON ST., NEW CROSS ROAD, S.E.



ELLIMAN'S ROYAL EMBROCATION.

"I think it very useful."
RUTLAND
G. H. Selous.

1/2.
2/6 3/6

FOR
SPRAINS, RHEUMATISM, CUTS, BRUISES.

Prepared by
ELLIMAN, SLOUGH, ENGLAND.

ELLIMAN'S**£5 14 0**

value, assorted or not.

10 per cent. Cash, carriage not paid.

Agreement, Bills, Books, Show Cards.

ELLIMAN, SONS & CO.

Slough, ENGLAND.

TRADE MARK REGISTRATIONS.

(HOME, FOREIGN, AND COLONIAL.)

Moderate Inclusive Fees.

SEARCHES, REPORTS, DESIGNS.

T. B. BROWNE, Ld., 163, Queen Victoria St., E.C.

HORLICK'S

MALTED MILK

FOR

Infants & Invalids.

39 Snow Hill, E.C.



"It seems to upset all our preconceived notions to find Fluid Extracts in process of manufacture at the freezing instead of at the boiling point of water. And yet this is what I saw going on in MESSRS. FLETCHER, FLETCHER & CO.'s Laboratories. The products so obtained, instead of being 'cooked' out of all recognition, possess the full aroma and flavour of the fresh drugs."

THE EIGHTH INTERNATIONAL PHARMACEUTICAL CONGRESS.

DOCUMENTS have been received during this week from the General Pharmaceutical Association of Belgium announcing that the Eighth International Congress of Pharmacy will be held in Brussels on August 14, 15, 16, 17, 18, and 19 next.

The Belgian Association named above, which is organising this Congress, is to celebrate the fiftieth anniversary of its own foundation at the same time, and the Brussels International Exhibition will also be, as the invitation puts it, at that time "in all its splendour," and will offer an additional attraction. The Committee, it is further promised, "will use its best endeavours to render the stay of the Congressists in Brussels as agreeable as possible."

British pharmacists have long ceased to take these International Pharmaceutical Congresses seriously. They have met in more or less solemn pomp at Brunswick in 1865, at Paris in 1867, at Vienna in 1869, at St. Petersburg in 1874, London in 1881, Brussels in 1885, and at Chicago in 1893. They have conferred in various languages, have printed bulky reports, and have been reported at portentous length; but we should not like to have to indicate the least bit of solid advantage to pharmacy as a trade or profession which has resulted from all their labours. The International Pharmacopœia, which at most of the Congresses was the grand central topic, seems to have gone out of ken altogether; the secret medicine trade, which has been frequently denounced with a ferocity and unanimity worthy of better results, continues to flourish; and the position and education of the pharmacist has been uninfluenced, so far as we can judge, by the many eloquent appeals made in the cities we have named.

But if the professional results of these meetings have been insignificant, the opportunities for social enjoyment which they have afforded have been unequalled. From this point of view we would advise all British pharmacists who can get away next August to spend the week named in Brussels. The Belgian pharmacists can beat all the world in entertaining. The Congress of 1885, held in that city, was one constant round of splendidly-organised fêtes. The King and the burgomaster, the Foreign Minister, and a number of other high dignitaries lent their patronage, and actually helped to promote the success of the affair. They all assured us that they were anticipating eagerly the pleasure of reading our discussions. M. Maurice Duyk, 102 Chaussée de Wavre, Brussels, is the secretary of the Congress, and he will supply applications for membership. The membership fee is ten francs (8s.). The subjects of discussion may be anything relating to pharmacy, materia medica, hygiene, bacteriology, pharmaceutical legislation, professional interests, &c. Any subjects left over from the 1885 Congress may also be resumed. A novel feature is introduced by the offer of six prizes—three for papers on pharmacy from its scientific point of view, and three for papers in regard to professional interests. The subjects are left to the choice of the competitors. Every adherent—that is, every subscriber of ten francs—is entitled to compete. The Committee print twenty questions as suggestions for competitors, but no stipulation of limitation to these topics is made. A full supply of papers concerning the Congress, with forms for the signature of members, will be supplied with pleasure by Mr. Duyk, whose address we give above.

PHOTOGRAPHY IN COLOURS.

At last an attempt has been made to produce photographs in natural colours by a purely chemical process. M. A. Graby, in a paper communicated to the Paris Academy of Sciences, states that he has been able to obtain blue, red, and yellow subchlorides of silver when silver chloride dipped in a solution of silver nitrate is exposed to blue, red, and yellow light, the subchlorides varying in stability, and requiring chemical treatment to fix them. At present M. Graby appears to have made but a beginning in the study of the conditions upon which the different colours are pro-

duced, and some modification of his statements is likely to be made, but the following are the crucial points—we quote from the *Photogram* for February, which contains a translation of the paper:—

Under the influence of blue light blue silver subchloride is not sensitive, and remains the same; but the red, if mercuric chloride be present, takes up chlorine and is converted into the blue. If chromic acid be present also the yellow becomes oxidised to blue, so that only blue remains. Under yellow light the chromic acid is not affected, but the blue and red—especially the former—are bleached, losing their chlorine and amalgamating with mercury. Under red light the red subchloride remains unchanged, but the blue is changed by the red-orange rays into the red subchloride. White light produces blue or greenish yellow, according to whether the paper is exposed in the dry or moist condition.

The most successful method of producing the coloured photographs is to immerse gelatino-chloride paper in a 4-per-cent. solution of hydrochloric acid and expose it in diffused light until it becomes blue. Then it is dipped in a bichromate-of-potash bath, next in a nitrate-of-mercury one, and when dry it is printed, but whether directly or under a plate the author does not make clear; at all events, he says the picture is coloured. After this it is treated with acetate of lead to fix the yellow lights; then the image is transferred to another paper and washed, as in the carbon process. Finally it is passed through a bath of bichloride of mercury and salt.

The picture so produced has the natural colours. It will be seen that this process gives the promise of a real chemical, as opposed to physical, method of reproducing and fixing on one print the colours of nature. As often happens with a discovery of this kind, it does not come alone. Sir H. Trueman Wood, Secretary of the Society of Arts, describes in the *Journal* of that Society a process which has been exhibited to him (in presence of Professor J. Miller Thomson and Mr. Herbert Jackson, of King's College, experts in photographic matters) by M. Villedieu Chassagne, of Paris.

It is a process, says Sir Henry, originally suggested by Dr. Adrian Dansac, and M. Chassagne keeps secret the nature of the four solutions he employs. He takes a negative on a gelatine plate prepared by treatment with one of his solutions. This is developed and fixed in the ordinary manner. It shows no trace of colour. From it a print is taken on glass or paper, the plate or paper being specially prepared by treatment with the same solution. The transparency or the paper print in no way differs to all appearance from an ordinary positive, and shows no trace of colour by transmitted or by reflected light. It is then washed over successively with three coloured solutions, blue, green, and red, and it takes up the appropriate colours in the appropriate parts, these three colours giving, by their various combinations, all varieties of hue. How it is that this power of selective absorption is given to the components of the photographic image (principally, of course, metallic silver) is, it appears to Sir H. T. Wood, the interesting question connected with the process. The action is certainly previously unknown, and it will, as certainly, repay scientific investigation.

It is this Chassagne process about which so much has been written in the daily papers during the past week. We confess to a preference for Graby's as being nearly the ultimate point in colour-photography. Both methods indicate that the red, blue, and yellow lights cause each a molecular change of its own in the negative. In Graby's process the immediate result of these changes is a reproduction of the natural colours; in Chassagne's the change creates things which are mordants to the red, blue, and yellow colours (apparently), so that it is a step behind Graby's. Nevertheless, there is the superiority in Chassagne's that coloured photographs of natural objects have actually been produced in the presence

of other persons, and with no more trouble than the developing, fixing, and washing of an ordinary photographic plate. Both negatives and positives have been produced. We do not suppose that finality is yet reached. The gratifying point is that some have abandoned the purely physical methods involved in the employment of coloured screens, and have had success thereby.

FROM MATTER TO MIND.

THE records of Mr. Crookes's excursions into the debateable regions which lie or which may lie between the fields which science has cleared and those veiled lands which only faith or credulity, as the case may be, can enter, have been among the most tempting of the forbidden contributions to scientific literature. Mr. Crookes has furnished his full share of strict research with hard, dry, solid facts, and we are among those of his admirers who are glad that he has found those investigations insufficient to satisfy the inquisitiveness which acquired knowledge should always stimulate. In his address given last Friday, as President of the Society for Psychological Research, Mr. Crookes had the opportunity of indulging his scientific imagination to a degree which would have been almost an outrage at Burlington House.

Telepathy, or thought-transference, was the aim of Mr. Crookes's address. He did not discuss the evidence which myriads of people are ready to offer as to the genuineness of communications alleged to have been flashed from mind to mind over oceans and continents; nor did he accept the testimony but decline to investigate it, as a man of science justly might, on the ground that manifestations of spiritual force are outside the scope of human inquiry. Mr. Crookes is by no means sure of that. Extend your scope, he says, and who can tell what you may see? Many people assume that more is known about the universe than is known. We are limited by our conditions. How different would all nature appear to beings a million times smaller or a million times greater than ourselves! Tracing how sound depends on a certain rapidity of vibration, how by a still more rapid series of vibrations the phenomena of electrical rays appear; higher up still in the scale comes light; and beyond that, again, lies the region, Mr. Crookes believes, of the Röntgen rays. He assumes that with still more speedy vibration "these rays pierce the densest medium with no diminution of intensity, and pass unrefracted and unreflected along their straight path with the velocity of light." Soaring still higher on the wings of "scientific imagination," he assumes orders of vibration still minuter, waves of ether ceasing to have the properties of those known to us and overcoming all obstacles caused by distance or intervening matter. May not these rays enable intelligence to be transmitted from one sensitive being to another? May not their radius of action be practically limitless? "Is it inconceivable that intense thought concentrated towards a sensitive being with whom the thinker is in close sympathy may induce a telepathic chain along which brain-waves can go straight to their goal without loss of energy due to distance?"

Whether to characterise such speculations as these as ethereal or material we know not. It may be that in them we have a glimpse at the problems which will tax the ingenuity of our scientists at the end of next century. We have the utmost respect for our posterity, and dare not dream of limiting their genius; but, if we may telepath across time as well as across space, we venture to prophecy to them that even they will find, what our fathers never doubted, that the worlds of mind and of matter are hopelessly separated, and are not to be bridged by waves of ether, however subtle.

NOTE, MAY 18.

The decennial dinner for the Pharmaceutical Benevolent Fund is to be held in the Victoria Hall, Hotel Cecil, on May 18. On such occasions as this a strong and generally successful effort is made to increase the invested funds of the charity, and no doubt cheques of 100 guineas will be rolling in to the Secretary. Besides the fortunate individuals who can send such missives there are many in the trade who can do good to the fund by acting as stewards. Their liability in that connection will be a guinea, and they need not necessarily eat the dinner. There should be a long list of stewards.

CHILBLAINS.

By a curious coincidence Professor A. E. Wright, of Netley Hospital, communicated to the *Lancet* last week a paper on the pathology and treatment of chilblains, which practically fills in the gaps in our knowledge of this distressing winter trouble, to which we referred on the same date. Professor Wright finds that the blood of persons liable to chilblains takes about three times longer to coagulate than the normal time (three to four minutes). This condition obtains in children (whose blood is deficient in calcium, owing to bone formation), in those liable to nose-bleeding and urticaria, in those of lymphatic habit of body, in persons subject to malarial cachexia, and in those of hæmophilic constitution. He gives a record of eight cases in which the slow coagulability of the blood was marked, and all were rapidly cured by the administration of 6 to 30 gr. of calcium chloride three times a day. The cure took from two to 10 days only, a most remarkable thing, for several of the cases were very bad indeed.

THE ATTFIELD TESTIMONIAL.

Mr. John Moss, the treasurer and secretary of the committee formed some time since to organise a testimonial to Professor Attfield from his pupils, those who have studied his writings, and his pharmaceutical, medical, and chemical friends, has received the following letter from Mr. Herkomer, the famous painter:—

Lululaund, Bushey, Herts.
January 4, 1897.

TO THE COMMITTEE OF THE ATTFIELD TESTIMONIAL.

DEAR SIRS,—Before my friend Professor Attfield gave up his long educational labours I had offered to do a plate of him myself by my new method. Not only does this promise hold good, but the plate is at the service of those who wish now to honour him by subscribing to a testimonial, the only expense to them being the printing of the proofs on India paper, which would not exceed 15s. per hundred, inclusive of paper. Each proof will be signed by me.

I remain, Gentlemen, yours faithfully,

HUBERT HERKOMER, R.A.

In view of this generous offer the committee have decided to present one of these signed proof-portraits to every 10s. subscriber to the fund. Mr. Moss points out that it is impossible to address all Professor Attfield's pupils individually, but he hopes a large number of them will write to him. The intention is not so much to get a large sum of money as it is to obtain a large array of friendly names. It is desired that subscriptions shall not exceed 10s., and it is suggested that the testimonial shall take the form of an album containing the names of all who associate themselves with the movement, together with, perhaps, a silver salver, with inscription, and a piece of physical apparatus. Mr. Charles Unney (Professor Attfield's first pupil) is the chairman of the committee. Mr. Moss's address is 39 Tressillian Road, St. John's, S.E.

THE DRUG TRADE IN GREAT BRITAIN.

The report of the registrar of the Pharmaceutical Society of Great Britain submitted to the Council meeting on Wednesday confirms the observations which we made when reviewing the year 1896, but gives rise to some other thoughts

which may be noted. The actual increase on the register during the year was only 88, no fewer than 435 names having been erased. If we take the numbers entering for the Preliminary examination as indicative of those entering the trade, then see how many enter for the Minor examination, we should get a fair approximation to the condition of the trade. For the Preliminary 1,658 entered and 829 of these have been placed on the register of students. A smaller number (1,449) entered for the Minor, but of these only 503 were found to be qualified. It will be understood that the numbers entering do not represent individuals, for a man may be examined more than once during the year. What the actual numbers are, the registrar only knows; but we imagine that if we deduct a third off the first examination numbers and a half off the Minor, we shall get close to the truth. This would give, therefore, 1,147 for the first (including 125 who presented certificates), and 725 for the Minor. As what happened last year, also happened the year before, and will occur this year again, at least in ratio, we see that more than one-third of these who enter the drug trade leave it before they qualify or never qualify. These figures—passed the first 829, passed the Minor 503—show a difference which is the best possible reflection of the condition of the drug trade. If it were flourishing there would be a much smaller disparity between the numbers.

HOW STANDS THE PHARMACEUTICAL SOCIETY?

If the condition of the registers is not a sign of good drug business the condition of the Pharmaceutical Society's register is equally eloquent of a not too progressive state in the body corporate. The Society is losing grip of the men who have something at stake—viz., those in business. The loss in membership (*i.e.*, pharmaceutical chemists and pre-1868 chemists and druggists) during 1896 was thirty, and that was a smaller loss than in 1895; but the figures in regard to associates in business are decidedly depressing. They are as follows:—

—	1892	1893	1894	1895	1896
Restored	36	19	11	14	11
Elected	175	182	165	159	127
Total additions	211	201	176	173	138
Deaths, secessions, &c. ..	108	100	126	115	139
Increase	103	101	50	58	—
Decrease	—	—	—	—	1
Total number of annual associates in business	1,443	1,544	1,594	1,652	1,651

Thus the gains of the previous four years have ceased, and there is a loss of one, converted, however, into a gain of three by four associates compounding their fees. Further, it may be noted that of the 12,913 chemists and druggists on the register (apart from pharmaceutical chemists, who number 1,584) only 2,258 of them in business on their own account support the Society. It may be considered a hopeful sign, on the "learn young, learn fair" principle, that assistants and apprentices (especially the latter) are coming forward to the Society's support in increasing numbers; but that is poor consolation to a Council which has to meet increasing Christmas bills.

THE ROYAL ARMS.

We learn from a police-court report that there is an "Incorporated Association" of her Majesty's Warrant Holders (Limited). This imposing Society discovered a butcher named Crisp in the Edgware Road using the Royal arms over his shop, though he was not a warrant-holder. After fruitless attempts to induce him to stable the lion and

the unicorn, they at last had to bring him before Mr. Plowden at Marylebone Police-court. Mr. Crisp had at first claimed that he had the right to use the arms on the ground that he had bought a 100% bullock from the Windsor Royal Fair, and that the Steward of Windsor Castle had in return bought 36 lbs. of the sirloin back from him. It was said that when the order was sent to him by the Board of Green Cloth it was expressly pointed out to him that a complimentary order of this kind did not entitle him to use the Royal arms. Mr. Crisp seems to have abandoned this defence, and asked the Association to give him time so that he might try to get the appointment. In this, however, he failed. Before the Magistrate his counsel argued that he had patented an improved means of hanging meat in his shop, and that this gave him the right to use the Royal symbol. Mr. Plowden rejected this final attempt, and fined the ingenious butcher 15*l.*, with five guineas costs. It would seem that there is some commercial value in the display of the Royal arms, or there would hardly be, on the one hand, such a struggle to secure the right, or, on the other, a company incorporated to protect the monopoly of the rightful owners. What we should like to know, however, is whether the butcher could be stopped from announcing for ever on the strength of the 36 lbs. of beef that he was a butcher to Windsor Castle. A statement of that kind would, we should think, be more effective than the mere arms.

THE ELECTRIC RAY.

The Christmas number of *Pearson's Magazine* introduced Professor Chunder Bose, of Calcutta, to the English public as a gentleman who had out-Röntgened Röntgen by doing anything he liked with the electric ray, throwing it about in space, through brick walls and human bodies, without robbing it in the least of its electric efficiency. Last Friday evening Professor Bose told a Royal Institution audience all about the ray. He showed that electricity moves in waves like light-waves, but of course much less rapidly and that, like light-waves, electricity can be focussed into a ray. This has been known before, but the way of doing it perfectly is Professor Bose's achievement. In his experiments on electric radiation he uses a modified Lodge's coherer and a receiver consisting of a number of special springs, arranged evenly in a smooth ebonite case, and provided with a large number of contact-points. The sensibility of this receiver is adjusted by altering the strength of the current. By means of this apparatus Professor Bose experimentally proved that light-waves and electric waves have properties in common. He exhibited the power of selective absorption to electric rays displayed by many substances, pointing out that white water, which is a conductor, stops them, liquid air, which is a bad conductor, is quite transparent to them. He showed they can be reflected from plane and curved mirrors, obeying the same laws as light. They can also be refracted, and he described an ingenious method, of which he also gave the optical counterpart, by which he has been able to calculate the index of refraction for certain opaque substances with considerable exactitude. Crystals can polarise electric rays, and substances under pressure and strain produce double refraction. Altogether the lecture was most interesting, and it was listened to by a distinguished audience who followed the experiments closely.

A HOPELESS CASE.—An old fellow was being treated for rheumatism at a hospital. The doctor had been to see him and had written something on the tablet at the head of his bed. Naturally curious to know the prognosis, the patient managed to get a glimpse of the superscription, which was more legible than usual. Then he started groaning: "The nurse came to him and asked if he felt worse. 'No, ma'am, not particular; but I got ter die.' The doctor have wrote it on my ticket." The nurse looked at the ticket and saw that the doctor had ordered a new medicine to be taken "ter die."

Westminster Wisdom

ON the day following the rejection of Sir Howard Vincent's Bill to amend the Merchandise Marks Act, Sir Albert Rolitt, President of the Associated Chambers of Commerce, moved for the appointment of the Select Committee on the Act which had been suggested by Mr. Ritchie. The motion was at once agreed to in the following form:—

That a Select Committee be appointed to inquire into the effects and operation of the Merchandise Marks Act, 1887, and into the subject of merchandise marks generally.

Sir Howard Vincent's chief proposal was to substitute the vague description of "foreign made" for the specific description, "made in Germany" or "made in Austria," as the case may be. Mr. Ritchie, however, dislikes the one description almost as much as the other, and the House is with him in this respect. One proposition which the Select Committee will be asked to consider is the advisability of recommending that all English goods be marked "made in England." It is doubtful, however, whether even this proposal will be adopted. So far as we can gauge the present temper of the House of Commons, we think it probable that those clauses of the Merchandise Marks Act which make it obligatory that all imported goods shall be marked with the place of origin will be repealed, and that the force of the law will in future be directed solely to preventing fraud and misdescription.

In the House of Lords, on Monday, the Earl of Dudley (Secretary to the Board of Trade) brought in the Companies Bill, which was announced in the Queen's Speech to be a feature of the Government programme this year. Having regard to the large amount of time devoted to this subject last Session, and to the fact that, to a large extent, the present Bill is a "cut-and-dried" measure, its progress to the House of Commons will probably be expeditious. Its fate there no man can forecast.

Following Mr. Duncombe and Colonel Dalbiac, Mr. H. S. Samuel has put down a motion to move the rejection of the Shops (Early Closing) Bill. There is no doubt considerable opposition to the measure, especially among the apostles of unrestrained Individualism in the House; but Sir John Lubbock is an Individualist too, and he has great influence on the Government side of the House. We repeat that there is a good prospect of the Bill being discussed, especially as it was dealt with in Grand Committee last year. It appears almost daily on the order-paper, sometimes first after the Government measures. Sir John Lubbock is always in attendance in the later part of each sitting, in the hope that some unlooked-for expedition with the orders may enable his Bill to be reached before 12 o'clock, in which case he could at least put in a strong plea on its behalf. After 12 o'clock it cannot, of course, be taken whilst the blocking notices of the Duncombe-Dalbiac-Samuel triumvirate remain on the paper.

As a set-off to his opposition to the Bill of Sir John Lubbock, Mr. Duncombe has brought in a short Bill to provide that all shop-assistants shall have one half-holiday in each week.

The motion of Mr. H. J. Wilson for a return relating to the acreage under poppy in India, the amount of advances to cultivators of crude opium, and other matters, not being opposed, it was last week ordered to be issued.

Business Changes.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

MR. S. P. G. BEANLAND, of Bradford, has purchased the old-established business of the late Mr. W. E. Skirrow, of Bingley.

MR. H. S. PEARMUND, pharmaceutical chemist, has commenced business at the Kent Drug Stores, 48 High Street, Tunbridge Wells.

MR. JAMES ROBB, lately manager for Mr. J. G. Anderson, Trinity Crescent, Newhaven, near Edinburgh, has taken over the business recently carried on by Dr. Pretsell, at 115 Leith Walk, Leith.

MR. R. L. HENDRY, Earl Grey Street, Edinburgh, has acquired, as a branch establishment, the business at Polwarth Crescent, which was recently disposed of by the trustees of the late Jas. M. Wilson & Co.

MR. S. F. HORSEY has purchased the business of Mr. Edward Blewett, at 12 James Street, Westbourne Terrace, Hyde Park, which he will carry on in conjunction with his present business at 2 Chichester Street, Upper Westbourne Terrace, W.

MR. D. T. EVANS, chemist and druggist, 1 High Street, and 12 Cliff Terrace, Cliftonville, Margate, Kent, announces that he has purchased the prescription-books hitherto used by Mr. Herbert Ray, chemist and druggist, Cecil Square, Margate, and Mr. J. Bristed, chemist and druggist, High Street, Margate.

THE wholesale and retail chemist and druggist business with premises situated in West Street, Sheffield, which belonged to the late Mr. John Clark, has been disposed of to Mr. C. A. Gardner, who has acted as manager for his brother, Mr. John J. Gardner, of 485 Glossop Road, chemist and druggist.

Trade-Marks Applied for.

(From the "Trade Marks Journal," January 27, 1897.)

"WULFRUNA"; for chemical substances used in manufactures, photography, &c. By A. Crosbie (Limited), 78A Walsall Street, Wolverhampton, paint and colour manufacturers. 199,450.

"SNOWDRIFT"; for a size for use in the manufacture of paper, cardboard, and papier-maché. By Snowdon, Sons & Co., Lowe's Wharf, Millwall, London, E., manufacturers. 199,990.

Figure of a fox-terrier dog in double circle, and wording; for dog-soap. By Brecknell, Turner & Sons (Limited), 31 Haymarket, London, S.W. 200,344. Essential particular: The device.

Facsimile of applicant's signature on plain label, with wording; for a medicated preparation for human use. By G. J. Garwood, Thorpe Hamlet Pharmacy, Norwich, chemist and druggist. 200,158. Essential particular: Written signature.

"CLAROMA"; for a medicinal preparation for human use. By W. Gardner, 28 Newington Road, Edinburgh, chemist and druggist. 200,377.

"ZITELINE"; for poultry, horse, and cattle foods. By Ashfield Brothers, 161 King's Road, Reading, agricultural chemists. 200,038.

"FESCA," and wording on label; for a preparation for cleansing sponges, bath-gloves, &c. By Flora Knight, 118 Walton Street, Chelsea, London, S.W., spinster. 19,799. Essential particular: The word "Fesca."

Figure of pied wagtail; for eau de Cologne. By T. J. W. Tipping, 155 High Street, Stoke Newington, London, N., chemist. 197,191.

Shaving-brush and razor; for shaving-cream. By the Shavo Shaving Cream Company, 156 Argyle Street, Glasgow. 200,327.

(From the "Trade Marks Journal," February 3, 1897.)

DAGGER, and sketch of same; for arsenic. By W. Bevan & Co., Eagle Chambers, Swansea, chemical manufacturer. 199,477.

HAWKMOTH; for photographic films, cameras, &c. By the European Blair Camera Company (Limited), 9 Southampton Street, High Holborn, London, manufacturer. 199,560, 199,743.

"EURISSA"; for cod-liver oil, medicated articles, and patent medicines. By Eurissa (Limited), 20 Cathedral Yard, Exeter. 200,124.

Legal Reports.

SALE OF FOOD AND DRUGS ACT.

SALICYLIC ACID IN QUININE WINE.

AT Stratford-on-Avon Police Court on January 28, James William Walker, a director of the General Supply Stores, Henley Street, was summoned by Mr. F. G. Bennett, County Council inspector, for selling orange-quinine wine not of the nature, substance, and quality demanded. For the prosecution a certificate from Dr. Bostock Hill was produced, which stated that the wine contained 9 gr. per pint of added salicylic acid. Mr. S. C. Warden, who defended, said the wine was sold as it was received from the manufacturers, Messrs. Lorimer & Co., of London. It was made in accordance with the prescription in the British Pharmacopœia, with the addition of the salicylic acid, which was to prevent fermentation, and was not harmful to health. A number of witnesses were examined, including Dr. Mason and Mr. Lorimer, and it was stated that Mr. Greene and Dr. Ross, of Stratford, and Mr. Desch, B.Sc., who were in court, were prepared to give evidence for the defence. The Mayor said, in the opinion of the Bench, no fraudulent intention had been proved, and that there was nothing in the compound injurious to health. The summons would be dismissed.

ARSENICAL SOAP.

AT the sitting of Kingston-on-Thames Police Court on January 26, Mr. Sydney H. Hope, solicitor, representing Mr. A. Higgs, chemist and druggist, who was recently fined for selling arsenical soap not of the nature, substance, and quality demanded, stated that since asking the magistrates to state a case similar cases had been before other Benches, in some of which the Justices had held that the same kind of soap was not a drug if it did not contain arsenic. Counsel having suggested to his client that he should await the result of the appeal which the Surrey County Council proposed to make in regard to these cases before proceeding with his appeal, they had decided to adopt that course. Meanwhile Mr. Higgs was instituting proceedings against the firm which supplied him with the soap for damages.

AT the Epsom Petty Sessions, on January 25, Frederick Oxley, chemist and druggist, of High Street, Epsom, was summoned for selling what was alleged to be arsenical soap, but which, upon analysis, was proved to contain no arsenic whatever. Mr. J. H. Gould prosecuted, and stated that the seller who took the profit was responsible for the quality of the goods he sold to the public. That principle had been accepted for twenty years, and was a just one, for if the seller could screen himself behind the manufacturer, the public would probably not be able to get at the manufacturer. The price of a very small tablet of the soap was 10½d., the market value of which was 2d. or 3d. Defendant said he believed there was arsenic in the soap. After consideration the Chairman stated that the defendant had his remedy against the people who sold him the soap. He would be fined 10s. and 10s. 6d. costs.

CHARACTERISTICS OF NITROUS ETHER.

AT Barry Dock Police Court on Monday, Mr. Gratte, chemist, was summoned for selling spirit of nitrous ether which was deficient in the characteristic ingredient. Two of the three Magistrates were doctors. Mr. Jackson appeared for the defendant. Inspector Williams proved the purchase, on December 17, at defendant's shop, of 3 oz. of spirit of nitrous ether, for which he paid 1s. Superintendent Giddings produced the public analyst's certificate, which stated that the spirit contained only 0.9 per cent. of nitrous ether; good spirit contained about 2 per cent. Mr. Jackson said his instructions were that there was no chemical compound which so rapidly oxidised and changed from exposure to light or air as nitrous ether. It decomposed into nitrous and acetic acids and alcohol. He complained of the absence of the public analyst. The Bench agreed that the public analyst ought to have been in court for examination. In their opinion the case was not made out, and therefore they should dismiss the summons.

AT St. Asaph Police Court on Monday, before Dr. Easterby and Mr. Peter Roberts, Wm. Thomas, Rhallt Stores, Rhallt St. Asaph, was summoned for selling spirit of nitre below the legal limit of strength. An Inspector deposed that he purchased from the defendant 4 oz. of spirit of nitre, for which he paid 1s. 4d. On being analysed by Mr. Lowe the sample was found to contain only one-fifth of the minimum amount of active principle—ethyl nitrite—ordered by the British Pharmacopœia. Thos. Roberts, Cwm, said the shop belonged to Mr. Evan Jones, stud-groom to Mr. P. P. Pratt, Bryvellithay Hall. He accompanied him to Liverpool to buy the stock, and they purchased the spirit of nitre from Messrs. Morris & Jones, Liverpool, who guaranteed it. When they got the summons they communicated with Messrs. Morris & Jones on the subject, and they received a letter dated January 29 saying, "We wrote you a month ago, stating that it was the proper strength—namely, 850—but probably, owing to the length of time it has been kept, it has gone weak. We send you a copy of a druggists' journal in which is a report of a case similar to yours, which was tried and dismissed." Inspector Williams said the public were paying full price for an article that was worthless. Witness: The defendant was perfectly ignorant that it was below strength. It must have evaporated. Mr. Peter Roberts: It is not a question of evaporation. It is a question of a change in the nature of the drug. After the Bench had considered the case in private, the Chairman said it was the first offence, but the public must be protected from buying an article that was worthless. A fine of 1s. would be imposed. The costs amounted to 1l. 4s. 6d.

MILK OF SULPHUR.—A CHEMIST'S GOOD CHARACTER.

MR. JUSTICE WRIGHT and Mr. Justice Bruce, sitting as a Divisional Court of Queen's Bench, on Monday, heard an appeal in the case of Sandys v. Simpson. Mr. Hextall, who appeared for the appellant, said the case was stated by Justices of Derbyshire, who had decided by a majority of three out of four, and related to an information laid against a chemist at Heanor, Derbyshire, for selling precipitated sulphur adulterated with 46 per cent. of sulphate of lime. The appellant was Inspector of Weights and Measures for the county of Derby. He commissioned County-Inspector Joseph Hewitt to visit the respondent's shop. Hewitt purchased from the respondent ½ lb. of precipitate of sulphur. The respondent weighed out the article, wrapped it in a parcel, and affixed to it a label "Precipitated Sulphur." At the hearing of the information the chemist made a statement—not, however, on oath—to the effect that, though he kept precipitate, the general demand amongst the public was for milk of sulphur. He served Hewitt with that, and offered to change it; but, he added, he rather "sealed his doom" by affixing the precipitate-label. This was explained by the fact that he had run out of labels. He further said he was unwell on the particular day Hewitt called. Mr. Hextall submitted that the Magistrates were bound to act on the evidence before them. In this matter they wilfully disregarded sworn testimony which was not in the slightest degree questioned. Hewitt gave his evidence on oath.

Mr. Justice Wright: The Magistrates did not believe him. They can do so if they like.

Mr. Hextall said if the respondent had been sworn it was true it would have been a question of fact for the jury.

Mr. Justice Wright: But the Justices are not necessarily bound to act on uncontradicted evidence.

Mr. Hextall: The evidence here was literally uncontradicted and absolutely unquestioned.

Mr. Justice Bruce: There are cases where it is impossible to contradict evidence.

Mr. Justice Wright instanced the case of criminal matters where counsel called no witnesses for the defence, and relied upon his eloquence.

Mr. Hextall: This was a case of considerable importance. The officer was bringing into force a public Act, and if the Magistrates were going to reject such evidence it was a serious thing.

Mr. Justice Wright said their duty was not to put the Magistrates right on findings of fact, but on difficulties as to the law.

Counsel went on to speak of the Magistrates' actual deci-

sion. This was that the respondent was a well-known, respectable, and honest tradesman, and they believed fully his statement that he offered to change the milk of sulphur and substitute the precipitate. They further believed Hewitt knew he was receiving milk of sulphur before the actual delivery. This, Mr. Hextall said, might have been a mitigation of an offence, but it was that only.

Mr. Justice Wright: What is the use of a man having a forty years' good character if the Magistrates don't acquit you sometimes?

Ultimately his Lordship said he should think it very likely the Magistrates were wrong in this case, but they had a right to go wrong if they could reconcile it to their consciences.

Mr. Justice Bruce concurred, and the appeal was dismissed without costs.

COUNTY COURT CASES.

A REMINISCENCE OF THE CHEMISTS' EXHIBITION.

ON January 29, in the Westminster County Court, before Judge Lumley Smith, Q.C., the case of *Elmes v. Cantwell* came on. The claim was for 23*l.* odd for work done for the defendant in fitting up stalls at the Chemists' Exhibition held last August at the National Skating Palace. A counter-claim for 100*l.* was put in for damages sustained by the defendant in consequence of the delay of the plaintiff in carrying out the work, which was not completed until after the exhibition was opened; but the rules of the Court had not been complied with in reference thereto, and therefore the counter-claim was struck out by consent, defendant preferring that course, which will enable him to bring an action for the amount, rather than have the case adjourned. The plaintiff deposed that he was to have gone into the exhibition building at least a week before the exhibition opened, but as a fact he could not get in until the Friday before the exhibition opened on the Monday, and practically the whole of the work was completed before the exhibition opened at 12 o'clock on the Monday; several little things were done afterwards at the defendant's request, and there was no unnecessary delay. Defendant said when the contract was entered into it was clearly understood that the whole of the work was to be done by the Saturday night, and some of the work was not properly completed. The partition of one room did not go to the wall, and the editorial room was so badly done that it was hardly used. The electrical-room partition did not go to the ceiling, and in consequence the *x*-rays exhibition to a very great extent was a failure. His Honour found for the plaintiff for the amount claimed, less 2*l.*

A PATENT-MEDICINE VENDOR'S CLAIM.

AT the St. Albans County Court, on January 26, before Sir A. T. Marten and a jury, Frank Elliott, patent-medicine proprietor, Pembury, Tunbridge Wells, sued Joseph Lee, landlord of the Sun Inn, Markyate Street, St. Albans, for 20*l.* for the unlawful detention of goods, and damages consequent thereon. He was a vendor of patent-medicines and oils for horses and cattle, and in October last he travelled through Hertfordshire, and agreed with the defendant's wife to pay a certain sum per week for the keep of his horse and his own board and lodging. On November 16 he desired to drive to St. Albans with his goods to execute a large order, when defendant charged him with being "a swindler," and refused to allow him to take his horse, or trap, or goods until he had paid his account. He disputed the amount of the account, and ultimately the horse was sold by auction. The sale, he alleged, was not conducted strictly in accordance with the Innkeepers Act, and was therefore not legal. Some of the medicines detained, he said, were missing. He put his loss at 3*l.* per day, and brought his total claim to 50*l.* The Judge said plaintiff had no right to go away and leave his bill unpaid, and unless the jury could find that the defendant had been guilty of outrageous conduct, he did not think there was any ground for the claim. The jury found for the defendant, with costs.

A. J. WHITE *v.* SCOTT & BOWNE.

THE second stage in the Paskola libel case, the sensational opening of which we reported last week, occurred at Phila-

delphia on January 11, when Professor Henry Leffmann, a distinguished chemical expert, was examined on behalf of the defendants. His testimony was that he analysed Paskola in 1894 and found that it consisted largely of a form of sugar called dextrose, commonly known as glucose. There was no proteid—that is, albuminous material—present, at least not a quantity sufficient to show in the ordinary tests. If such albuminous bodies were present, they were in a very minute amount, escaping ordinary tests. In his opinion there was some intermediate product between starch and glucose. Starch itself was not present. There was a small amount of hydrochloric acid and a small amount of sulphurous acid present. He concluded that Paskola was almost entirely composed of the products resulting from the conversion of starch under the influence of acid, and that there had been added a small amount of sodium sulphite, and a little hydrochloric acid. He found no digestive ferment. He made experiments to determine the presence of the pancreatic ferment called trypsin. He did this because with the bottle was a statement that very hot water should not be used, since it might destroy the "trypsin" (*sic*). He knew of no substance by the name of "trypsin"; but knew a digestive ferment of great power and efficacy called "trypsin." In a later investigation, when a statement had been published to the effect that Paskola contained pepsin, he had found a slight peptic digestive. He had written an article against Paskola in the *Dietetic and Hygienic Gazette*, at the request of the Editor.

RETURNED AMMONIA.

IN the Queen's Bench Division on Thursday, before Mr. Justice Wright, sitting without a jury, Messrs. Hussey, Jones & Co., sued the Crown Chemical Company, of Livesey Chemical Works, near Blackburn, for the return of nine casks of carbonate of ammonia, or their value, and damages for detention. The plaintiffs had had these casks returned to them from Madras. They wanted to sell them, and asked the defendants, who were the original vendors, if they would give a price for them. The casks were sent to the defendants, and they were asked if they would take the ammonia at the original price. They did not agree to this, but offered a price which the plaintiffs could not accept. They did not send the goods to defendants to do anything more than make an offer. The offer made by the defendants was refused, and then the plaintiffs asked for the ammonia to be returned.

Evidence was called to show that the price of the ammonia when sent to defendants was little less than that originally given, but defendants offered much less.

Mr. George Wm. Stones, the defendant, trading as the Crown Chemical Works, said the ammonia was deteriorated in quality and was of no marketable value. Before it could be made of use it had to be worked up again, and when this had been done the 9 casks produced 7½ cwt. of useful commodity, for which plaintiffs were allowed 28*s.* per cwt. The original weight was 33 cwt., and on their return the weight was 30 cwt., which produced, on being worked up, the amount mentioned.

Mr. Justice Wright thought the defendants had made a slip, and there was no contract to work up the ammonia before giving a quotation. There must be judgment for 28*s.* less the amount paid into court, and costs.

OZONE has a density of 1.6584 as compared with oxygen as unity.

"WELL DONE, PIGEON!"—"When the Dutch attempted to destroy all the nutmeg-trees in several of their Eastern possessions for the purpose of enhancing the price of the product, their efforts were frustrated by the nutmeg pigeon, a large variety of the common wild bird, which, living on the mace or fruit of the nutmeg and swallowing the seeds, disseminated the plant all over the East and replanted the islands desolated by the narrow-minded colonists." So says the *New York Shipping and Commercial List*. This must have been a descendant of Noah's prize-pigeon, which had the intelligence to swallow an olive when bearing the branch along, and raised an olive garden on the roof of the Ark, knowing that the useful plant would otherwise have been exterminated by the Flood.

Bankruptcies and Failures.

Re JOHN WM. STOTT, 2 Prince of Wales Road, Swansea, Pharmaceutical Chemist.

ACCOUNTS have been filed in this case showing liabilities to unsecured creditors, 944*l.* 1*s.*, and assets consisting of cash-in-hand 7*s.* 2*d.*, stock-in-trade (cost 300*l.*) 200*l.*, trade-furniture, fittings, &c. 30*l.*, other property 1*l.* 5*s.*, making 231*l.* 12*s.* 2*d.*, less 20*l.* for preferential claims, which leaves 211*l.* 12*s.* 2*d.* and shows a deficiency of 732*l.* 8*s.* 10*d.* Cause of failure, as alleged by debtor, loss of trade through stoppage of Cwmfelin Tin Works. Official Receiver's observations: Debtor started business at 2 Prince of Wales Road, Swansea, on July 1, 1892, with a borrowed capital of 600*l.*, out of which sum he paid 500*l.* for the business. This was the first business for him to take on his own account. All the household furniture is claimed by his wife, having, it is alleged, been given to her by her brother before marriage, in 1893. Debtor has not kept proper books of account. The only book which he kept was a small memorandum cash-book. Neither has he at any time taken stock. He states he first became aware that he had not sufficient property to pay all his debts in full about three months ago, when he found the takings had gone down and experienced difficulty in paying his accounts as they became due. The value of the stock is believed to be largely over-estimated by the debtor. The following is a copy of the deficiency-account filed by him:—Net profit arising from carrying on business from July 1, 1893, to date of receiving order, after deducting from profits the usual trade expenses (estimated), 175*l.*, deficiency, 732*l.* 8*s.* 10*d.*—907*l.* 8*s.* 10*d.* Household expenses since July 1, 1893, of self, wife, two children, and servant (estimated), 262*l.* 10*s.*; difference between cost-price of stock and amount estimated to produce 100*l.*, purchase-money of business 500*l.*, rent of private house 17*l.*, clothing 20*l.*, legal expenses 7*l.*—906*l.* 10*s.* The following are creditors:—

	£	s.	d.
Barron, Harveys & Co., London	19	1	8
Camwal, Bristol	12	9	6
Ford, Shapland & Co., London	11	4	3
Bankers, Swansea	16	0	0
Heath Bros., Manchester	23	0	0
Herrings & Co., London	10	0	0
Hodgkinson, Prestons & King, London	27	2	2
Maenair & Co., Bridgeton, Glasgow	14	14	1
Maw, Son & Thompson, London	16	0	0
Oldfield, Pattinson & Co., Manchester	45	0	0
Schofield, Jno., Oldham	Not stated		
Stott, Elizth., Bolton-le-Moors	Not stated		
Thomas, Wm., Oldham	50	0	0
Woolley, Jas., Sons & Co., Manchester	25	13	5
Preferential creditor	20	0	0

Re SIDNEY EDDELS JOHNSON, 30 Mark Lane, E.C., and Rainham Ferry, Essex, Chemical-manure Manufacturer, trading as Miller & Johnson.

AT the London Bankruptcy Court last week this bankrupt applied to Mr. Registrar Hope for an order of discharge.

According to the report of Mr. H. Brougham, Official Receiver, the bankrupt failed last October. He owed about 10,800*l.*; his assets have already realised 1,710*l.*, and will probably yield 2,262*l.*, or sufficient to pay 3*s.* 6*d.* in the pound. The circumstances of the failure were duly reported at the time. The books showed that since 1888 there had been a net profit on the trading of 2,050*l.*, and his drawings during the same period amounted to 7,450*l.* In fact, with the exception of two separate half-years of the trading, the bankrupt's drawings were throughout in excess of his profits. In the opinion of the Official Receiver those excessive and unjustifiable drawings (though to some extent mitigated by special family expenses) had denuded the business of the necessary working-capital and largely contributed to the failure. The offences alleged by the Official Receiver were (1) insufficiency of assets to pay 10*s.* in the pound to the creditors, (2) trading with knowledge of insolvency, and (3) contributing to the failure by unjustifiable extravagance in living.

Having heard Mr. Hansell in support of the application, his Honour upheld the Official Receiver's report and

suspended the order of discharge for two years. He remarked that the bankrupt had apparently acted throughout the trading in good faith, and it was to his credit that proper books of account had been kept.

Re FREDERICK MASON, 52 Acre Lane, Brixton, Manufacturer of Meat-essences, &c.

THE adjourned first meeting of creditors under this failure was held on Wednesday at the London Bankruptcy Court, before Mr. H. Brougham, Official Receiver. Amended accounts had been filed. The unsecured debts are now returned at 12,125*l.*, in place of 3,069*l.*. Mrs. J. Mason, 52 Acre Lane, appearing as a creditor for 9,000*l.*, money advanced. The assets are now returned at 3,029*l.* 1*s.* 9*d.*, after deducting 73*l.* 2*s.* 6*d.* for preferential claims, and the deficiency is estimated at 9,127*l.* 4*s.* 3*d.* The Chairman reported that the meeting was adjourned on the last occasion to enable the debtor to put forward an offer. Mr. C. W. Saffell, as representing the debtor, said negotiations with two firms, that were proceeding at the date of the last meeting, had fallen through, but they were now negotiating with another firm for the purchase of the business. It was hoped that a definite offer would be received in a few days, and then an advantageous proposal could be made. Mr. Osborne, on behalf of creditors, opposed any further adjournment and advocated the appointment of a trustee in order that the failure might be closely investigated. The Chairman pointed out that a trustee could deal with any offer that might be received for the purchase of the business and that no good purpose would be served by another adjournment. Mr. Robert Bath, accountant, Benet's Place, Gracechurch Street, E.C., was thereupon selected as trustee, and to wind up the estate in bankruptcy, assisted by the following committee of inspection:—Mr. George Davey (J. Davey & Co.), Mr. H. T. Packman (Piggott & Packman), Mr. Heindruts (Eyre & Spottiswoode), and Mr. Honey. The public examination of the debtor is fixed for February 27.

Deeds of Arrangement.

Coleman, Frank Henry, 81 Stafford Street, Hanley, pharmaceutical chemist. Trustee, David Groom, Albion Street, Hanley, solicitor's clerk. Dated, January 25; filed, February 1. Liabilities unsecured, 286*l.* 18*s.* 4*d.*; estimated net assets, 120*l.* 4*s.* 6*d.* The following are scheduled as creditors:—

	£	s.	d.
Ashmall, E., Hanley	11	0	0
Cantor & Co., London	17	0	0
Cohen, J. & M., London	19	0	0
Cresswell Brothers & Schmitz, London	33	0	0
Ellis, Alfred, Hanley	14	0	0
Evans, Sons & Co., Liverpool	45	0	0
Gray, William, Hull	12	0	0
Marks, —, London	19	0	0
Story, Smith & Co., Hull	16	0	0
Wyleys (Limited), Coventry	22	0	0

Roberts, John Dawson, Taliesin, Llancynfelin, and Aberystwyth, veterinary surgeon. Trustees, Alfred Noyes, Pier Street, Aberystwyth, grocer, and others. Dated, January 25; filed, January 27. Liabilities unsecured, 541*l.* 6*s.* 8*d.* Composition of 10*s.* in the pound, debtor covenanting to pay by equal half-yearly instalments the sum of 25*l.* on June 30 and December 30 to meet same. The following are scheduled as creditors:—

	£	s.	d.
Davies, Miss U.	24	0	0
Davis, M. H., & Sons, Aberystwyth	23	0	0
Edwards, H. P., Aberystwyth	25	0	0
Hewlett, C. J., & Son, London	23	0	0
Hill, —	10	0	0
Howells, D., Aberystwyth	33	0	0
Jones, R. J.,	20	0	0
Lloyd, Dr.	20	0	0
Morgan, R., Aberystwyth	20	0	0
Noyes, A., Aberystwyth	47	0	0
Owen, —, Aberystwyth	10	0	0
Powell, T. & H., Aberystwyth	13	0	0
Roberts, D., Aberystwyth	20	0	0
Wyleys (Limited), Coventry	23	0	0
Wynne, E. P., Aberystwyth	20	0	0

Gazette.

PARTNERSHIPS DISSOLVED.

Donmall, C. T., and the **Sand Blast Engraving Company,** Sheffield, sign and glass writers, designers, and manufacturers of glass signs, tablets, and letters, and engravers and embossers of glass.

Langley, E. B. jun., and **Boal, T. W.,** under the style of **Langley & Boal,** Leeds, vinegar manufacturers, drysalts, and general merchants.

La Touche, A. D., and **Stephenson, D.,** under the style of **La Touche and Stephenson,** Ossett, Chickenley Heath, and Earlsheaton, Yorkshire, physicians and surgeons.

Miles, I., and **Wilkinson, J. D.,** under the style of the **Star Mineral Water Company,** High Street, Shadwell, E., mineral water manufacturers.

Stead A., and **Child, T.,** under the style of **T. Child & Co.,** Dewsbury, aerated water manufacturers.

Sykes, T., and **Sykes W.,** under the style of **James Walker Sykes & Sons,** Huddersfield, and under the style of **Sykes, Sons & Co.,** Meltham, joiners, drysalts, and soap manufacturers.

Wood, J., and **Shawe, D.,** under the style of **Wood & Co.,** Leadenhall Street, E.C., and Calcutta, chemical manufacturers and merchants.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDER.

Gray, Edward, Gloucester Road, Regent's Park, N.W., surgeon.

ADJUDICATION.

Campbell, James, Leeds, late drysalters' traveller.

New Companies and Company News.

CLEETHORPES AERATED WATER COMPANY (LIMITED).—Capital, 5,000*l.*, in 1*l.* shares. Objects: To carry on the business of aerated and mineral-water manufacturers, &c. Registered office, Mill Place, Cleethorpes, Lincolnshire.

HOLBROOK & HOLMES (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To take over the business carried on by Messrs. Holbrook & Holmes, at Heanor, Derbyshire, manufacturers of mineral and aerated waters, &c. Registered without Articles of Association.

PHENOZONE SOAP COMPANY (LIMITED).—Capital 5,100*l.*, in 5,000 ordinary and 100 founders' shares of 1*l.* each. Objects: To acquire the business of manufacturers of and dealers in the soap-products known as "Phenozone Soap." Registered office, Suffolk House, 660 Fulham Road, Fulham, London, S.W.

VIMBOS (LIMITED).—Capital 150,000*l.*, in 1*l.* shares. Objects: To enter into an agreement with Robert F. Perry for the purchase of the assets and goodwill of the business now or lately carried on by the Scottish Fluid Beef Company (Limited), and to carry on the business of meat preservers, and manufacturers, merchants, exporters and importers for use as food of animal, vegetable and other substances, meat foods, extracts and products. The first directors (to number not fewer than three nor more than seven) are to be nominated by the subscribers. Qualification, 250*l.* Remuneration, 1,000*l.* per annum and a percentage of the profits, divided between them.

H. GILBERTSON & SONS (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire and take over as a going concern the business of a druggists' sundriesman now carried on at 11 St. Andrew's Street, Holborn, London, E.C., by William R. White, under the style or firm of "H. Gilbertson & Sons," and to carry on the business of druggists' sundriesmen, chemists, druggists, perfumers, and importers of and dealers in chemicals, drugs, perfumes, and patent and proprietary medicines. The first subscribers are:—Wm. R. White and Edwin I. White, Peak Hill Gardens, Sydenham, S.E., gentlemen (10 each); Fred Richards, J.P., West Hill, St. Leonard's (1 share); Thomas Joyce, M.D., and Herbert W. Joyce, L.S.A., Shepherd's House, Cranbrook (1 each); Robert S. Brock, 321 Seven Sisters Road, N., gentleman (1);

John Heath, 2 Leander Road, Brixton Hill, S.W., gentleman (1). The first directors (to number not fewer than three nor more than five) are William R. White, Edwin I. White, and Robert S. Brock. Qualification, 10 shares. Remuneration, 100*l.* per annum, divided between them.

BRITISH HONEY COMPANY (LIMITED).—A meeting of this company, which is being wound up voluntarily, is called for February 26, at 3 P.M., at Mr. H. D. Booth's, 62 Lincoln's Inn Fields, to receive an account of the winding-up.

DAISY (LIMITED).—At the statutory meeting, held at the office of W. A. Atkinson, C.A., Park Row, Leeds, Mr. Jno. R. Ellis was elected governing director and chairman. The solicitor to the company, Councillor J. Wormald, was also appointed a director, and it was decided to request Mr. T. Pearson, F.G.S., to accept a seat on the board.

PARKE, DAVIS & Co.—The annual meeting of the shareholders of this corporation was held at Detroit on January 19; when a board of directors was elected consisting of Messrs. H. C. Parke, *Henry Stephens*, *Theo. D. Buhl*, D. C. Whitney, son of *David Whitney, jun.*, William M. Warren, Henry A. Wetzel and John H. Smedley. The gentlemen named in italics are the holders of Mr. G. S. Davis's shares. The agreement with Mr. Davis to act as consulting manager for two years at \$10,000 per year was confirmed, and Mr. Davis was given six months' leave of absence. The directors afterwards met and elected Mr. H. C. Parke president, Mr. Henry Stephens vice-president, Mr. William M. Warren general manager, Mr. H. A. Wetzel secretary, and Mr. John H. Smedley treasurer.

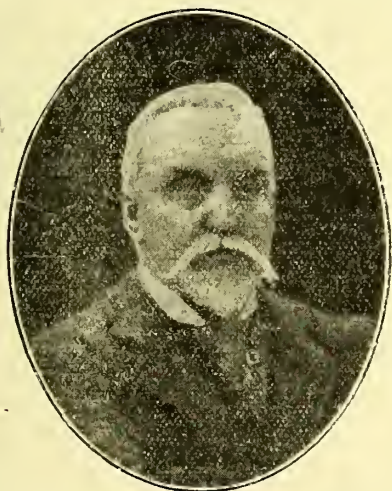
J. SCHWEPPE & Co. (LIMITED).—At the Mart, Tokenhouse Yard, on Wednesday last, Messrs. Edwin Fox and Bousfield offered for sale by public auction, shares valued at about 14,500*l.* in this company. They consisted of 514 fully-paid 5*l.* 5 per cent. preference shares, and 1,028 fully-paid 5*l.* ordinary shares, receivable on January 1, 1900, subject to the payment of 2.107*l.*, or on the death of a gentleman aged about 72 years, should he die before that date, subject to the payment of the same sum, with interest thereon at 15 per cent. per annum from January 1 immediately preceding such death to the date of death; the dividends for the same period for which such interest is payable being accounted for to the purchaser. The company was incorporated in 1893, and the authorised capital consists of 150,000*l.* in 5 per cent. cumulative preference shares of 5*l.* each, of which 144,000*l.* has been issued, and 300,000*l.* in ordinary shares of 5*l.* each, of which 288,000*l.* has been issued. There are debentures for 95,000*l.* The accounts are made up annually to December 31, and a balance-sheet is submitted at the general meeting in the April following. The dividends recently paid on the ordinary shares have been as follows: 1893, 12 per cent. per annum; 1894, 10 per cent. per annum; 1895, 11 per cent. per annum. The shares were put up to auction in one lot, and the bidding commenced at 7,000*l.*, rising to 9,000*l.* in two bids, after which they slowly advanced by hundreds to 10,100*l.* This figure not being satisfactory, they were bought in at 11,000*l.*

A PHARMACEUTICAL GLOBE-TROTTER.—The latest addition to the noble army of globe-trotters is a Parisian pharmaceutical student named Dufay, who has made a bet of 80*l.* to go round the world on foot without taking either money or clothes of his own. One of the most interesting points of the wager was how Paris could be traversed in winter minus some kind of apparel, but the large crowd which blocked the Rue de Richelieu last Sunday to witness the departure of the youthful pedestrian found him clothed decently and warmly enough, in a suit composed of copies of the current issue of a daily paper, the first instalment of the free gifts on which he is to exist during the next three years. Such intelligent comprehension of the use of advertisement augurs well for the young fellow's success. The first part of his journey lies through the United States. He sailed from Havre to New York on January 16. As he is only due to return in January, 1900, he will have ample time to obtain a degree from some American "diploma mill," and gain some all-round experience at an Eastern soda-fountain and a Western drug-store, and engage himself as "drummer" for some U.S. cure-all before penetrating further.

"Made in Germany."

More facts. Mr. Tyrer criticises the chemical chapter of "Made in Germany," and points out some flaws and many false deductions. Our wholesale druggists and manufacturing chemists do more business than ever. The fine chemicals, aniline and essential oil industries are advancing. But railway rates and dock charges must come down, and education be improved.

MR. THOMAS TYRER, F.C.S., F.I.C., &c., is an old campaigner of practical chemistry. He has spent rather more than a third of a century in chemical-factories. Stills, retorts, and boiling-pans are pleasant unto his eye. When he smells sulphur fumes he sniffs and says "Ha, ha!" Yet laboratory and factory cannot claim him for their exclusive own. At the Council Board, also, his face is familiar. He is Past-President of the Society of Chemical Industry; he has conducted no end of diplomatic negotiations with Government departments as spokesman of his fellow-manufacturers; he now occupies, for the second time, the chair of the Chemical Section of the London Chamber of Commerce. If someone, emulous of our Foreign-Trade statisticians, were to draw up a Comparative Chart of Attendances at Committee-meetings, Mr. Thomas Tyrer would be found, in the noble language of the statisticians aforesaid, to "maintain an unchallenged supremacy" over all comers. Moreover, as old Lafontaine said of the swallow, "Quicquid à beaucoup vu, peut avoir beaucoup retenu."



Mr. Tyrer has travelled. He has seen, with his own eyes, what other manufacturing nations are doing. To Mr. Tyrer, therefore, I determined to go in further search of enlightenment on chemical manufacturers' views of foreign competition. I had scarcely seized hat and umbrella with this object, when, "There he goes!" a colleague called, pointing towards the booking-office of Mansion House station.

"Come along," said Mr. Tyrer, when I caught up to him; "I'm going to the Publication Committee of the *Journal of the Society of Chemical Industry* at Westminster. We can talk in the train." And so we did, to the manifest indignation of two ladies whom we interrupted in a confidential exchange of notes on the relative cheapness of the dispensing departments of the West-end Stores.

"PUBLICATION TIMELY—DEDUCTIONS INCORRECT."

"I want your opinion, Mr. Tyrer, on *Made in Germany* (I presume you have read it), and especially on the chemical chapter of the book."

"My view of the book as a whole is that its publication was timely, that its figures, a few glaring blunders excepted, are fairly accurate, but that its general deductions are altogether incorrect. You saw that chart of British and German

foreign trade returns in the *Daily Chronicle* the other day? Well, that shows graphically that we have fully held our own, and that while Germany has had rather more than a look in in most parts of the world, her increase is not larger than, even if as large as, her fair proportion of the increase of all trade throughout the world."

"Just so. Pity the *Chronicle* chart stopped short at 1894. Had the compiler known the way, he could easily have obtained the German figures for 1895. Those, and the German returns for 1896, will be published in the *C. & D.* next week. Look out for them. Now, about the chemical-trade alone, please, Mr. Tyrer?"

"In my opinion Germany has increased her export-trade in chemicals faster than we have ours. Mr. Williams makes much of the large dividends paid by certain German chemical-companies, especially colour-works. He has picked out the most prosperous concerns. Had he taken the industry all round, he would have seen that by far the larger number of the factories are paying very small dividends, and that the average dividend is falling. The great burst of prosperity that followed upon the temporary monopolisation of a few highly-profitable remedies and colours by about a dozen large works is past."

"That appears incontestable. The fall in the price of salicylic acid and a few other big articles seems to account for the dwindling dividends of several concerns."

THE "BOTTOMLESS-PIT" IS A FICTION.

"Then Mr. Williams calls our own chemical industry 'a bottomless-pit for capital.' That, surely, is wild talk. Has he studied our bankruptcy returns for the past ten years, I wonder? If so, where has he found that increase in failures of chemical-manufacturers which would surely be recorded there if his bottomless-pit were anything but a rhetorical figure? If one can trust hearsay report, the United Alkali Company—the biggest combination in the kingdom—which Mr. Williams holds up as a 'frightful example,' would pay a fair dividend now had it not been over-capitalised at the start, had antiquated plant and badly-situated works not been acquired above their market-value."

"Now let us track Mr. Williams step by step through the subheadings of his chapter. Firstly, 'Crude Drugs and Medicinal Preparations.' Needless to say, according to Mr. Williams, our trade in that department is pretty well extinct. Our druggists have been teaching their business to German 'volontaires' in the past: the Germans have learnt all they wanted to know, and now our own druggists are 'getting plenty of time for the imparting of useful knowledge.' Now what are the facts? 'Mincing Lane?' Yes, I grant you, Mincing Lane has suffered; but our British wholesale druggists, especially those who put up preparations of their own, were never busier than at present. I say it deliberately, who know. More pharmaceutical chemicals are bought by wholesale druggists for re-sale at home, for manufacture, for export, than at any previous time within my experience. The open or disguised bounty-systems of Germany, her free alcohol for manufacturing, her return of excise on exported tinctures, have had something to do with her increase in this department in the past, but we are gaining ground every year. Mr. Williams refers to cinchona preparations and to camphor. He wants us to believe that the English camphor trade is 'going over to the Dodo.' Now, while it is quite true that the competition of German makers keeps down profits, I know it for a fact that British manufacturers of cinchona salts and refined camphor are increasing their output, and effecting more sales than ever before. The threatened competition from Japan will be more hurtful to Germany (if to anybody) than to us, because Germany manufactures goods of a lower average standard of quality than we do. 'The high London dock-charges and the enormous British railway rates drive traffic from us,' says Mr. Williams. That is true, and if you add to this the operation of the bounty system abroad you lay your finger on the sorest point of our trouble."

ALKALI.

"Now about alkali... What does he say?" Here the guard cried "*Wes'minster*," and we continued our conversation above-ground.

"We manufactured for the world in 1873" (I quoted from

Mr. Williams), "and on the next page he speaks of our 'utter failure,' as who should survey the industrial wreck of Britain from a St. Helen's waste-heap."

"I don't think we always manufactured alkali 'for the world,'" answered Mr. Tyrer. "Does our friend think that all the coal and salt and 'brains' are confined to Great Britain? Even if we had Universal Free Trade we should not do *all* the business, nor ought we to wish to. We might do much more if we had equal tariffs, dues, and freights, but wherever there are large salt and coal deposits you *must* expect an alkali industry to grow up. His statement that the recovery of sulphate of ammonia from coking-ovens is not at all, or scarcely, practised in this country is far too sweeping, and it is simply incorrect to say that nitrate of soda is an 'equal ingredient' with potash in gunpowder-making. In fact, I cannot make out what he is driving at with his observations about the decay of gunpowder-manufacture in this country."

"Perhaps the line about civilisation getting for'ard sometimes upon a powder-cart was running in his head, and he wanted to make a point somehow?"

FINE CHEMICALS.

"Maybe. 'Fine Chemicals' is his next heading. I have already spoken about quinine, a subject upon which, however, I am not an authority. But I *may* claim to speak with authority about photographic and analytical chemicals, and, to my knowledge, British industry in both these branches is more than holding its own. It is progressing rapidly, and the manufacturers are busier than they have ever been. With regard to albuminised papers, Mr. Williams is, in the main, right. The business is chiefly (not 'utterly') in German hands. But even here our friend's habit of overstating his case clings to him. So it does in the allegation that, with the exception of 'one or two specialties,' there are no manufacturing of pure chemicals in this country. And there is this fact to be considered, that, owing to the popular delusion that all pure chemicals are made in Germany, it pays British dealers of chemicals in some instances to pass off goods as 'made in Germany' when, to their knowledge, they are British products. Again, there are several chemicals which are only made in this country. Take morphia, for example. You will find it offered in several German manufacturers' lists as if it were made by them, whereas in reality they import it from England and Scotland. Chloroform is another case in point.

ANILINE AND COAL-TAR COLOURS.

"The history of our aniline trade is a pitiable one, that is true, but there were other reasons for its transference abroad than lack of energy on our part. Moreover, the trade in this country is expanding, and both aniline and coal-tar dyes of British manufacture are exported in growing quantities. In essential oils we have much to be ashamed of. So far as I know, Germany has no natural advantages over us in this department. Her advance in this branch of industry must be sought in her superior trained craftsmanship. But you must not forget that our distillers are following in the same path. Year by year they are quitting rule-of-thumb methods for scientific ones. As for general trade, I know of no industry, except sugar and alkali, that is not busy to-day and holding its ground."

"In short, Mr. Tyrer, you are an optimist. I take it that you would summarise our position thus: We were once the World's Workshop. We no longer hold that monopoly. Our long supremacy had made us over-confident—maybe a little indolent, too. The criticisms of the past few years, culminating in the 'Made in Germany' scare, have been a cold, health-giving douche. John Bull has pulled himself together, and, finding himself still sound in body and soul, is preparing to meet the four corners of the world in industrial arms, as he has done before on other fields. He has come out of the clouds of conceit. Like the giant in Mythology, he has touched Mother Earth again, and the contact has infused him with renewed vigour?"

OUR WEAK SPOTS.

"That, in the main, is my view. But we may as well recognise our weak spots. Mr. Williams's strictures upon our workers, our professors, our technologists, are generally correct. Our educational system is unsound. Is the race of enthusiasm-inspiring teachers passed away? Or, worse still,

is that of students who could be brought to work with ceaseless enthusiasm extinct? I fear to give an answer. But this I know: we want more obedient workmen; more managers trained in handicrafts, and in the scientific principles underlying their calling; more principals fit for their work—whether scientific, technical or commercial. We have practically no systematic secondary education in this country, and are not likely to have any so long as our theologians continue to wrangle about Dogma. The Germans have the advantages of universal military service, strict laws between employer and employed, and a body of professors who are State servants. Moreover, the continental workman is seldom ashamed of being a workman. He has no ideals for his sons in the shape of a City Clerkship and a tall hat."

"Would protection aid us?"

"No, not the manufacturers. The trade unions would at once claim the lion's share of the benefit—the apparent benefit, I should say. Even now a big strike is impending in the North for no other reason than that the men think that business is brisk, and that, therefore, they should have more money. No, the manufacturers would be worse off than before. But we need better education, land-law reform, cheaper transit on railways, lower dock-charges; and, I think, we were foolish in not providing for a discriminating tariff in favour of the Mother Country when we gave our colonies self-government and adopted free trade."

"Do you know," said Mr. Tyrer, as a parting shot when I stood again on the stairs of the Underground, "I often think of Robert Lowe's—or was it Goschen's?—*not* when the Franchise was lowered, 'We must educate our masters.' Whoever said it was right. But we haven't taken the advice. The Ignorant are our Masters still." And he nodded his head and looked right through me in the familiar way, with his index-finger alongside his nose.

We are indebted to the courtesy of Sir Courtenay Boyle, Permanent Secretary to the Board of Trade, for a copy of an exhaustive "Memorandum" issued by his department on the foreign trade of the United Kingdom, France, Germany, and the United States. This publication surveys the growth of industrialism in these four countries, and compares their foreign-trade returns for the past twenty years, with highly interesting results. Pressure upon our space compels us to hold over until next week an exhaustive critical review of the "Memorandum" in question.

New Books.

Barrett, A. W. (M.B. Lond.). *Dental Surgery for Medical Practitioners and Students of Medicine*. 3rd ed. With Illustrations. Cr. 8vo. Cloth. Pp. xii and 154. 3s. 6d. (H. K. Lewis.)

Browne, L. *Diphtheria and its Associates*. Illustrated by Author. Roy. 8vo. Pp. 236. 16s. (Baillière.)

Bruck, Ludwig (Editor). *The Australasian Medical Directory and Handbook: including a short Account of the Climatic and Sea-side Health Resorts in Australia, Tasmania, and New Zealand*. 4th ed. 8vo., cloth cover. Pp. 196. (Baillière.)

Cantley, Edmund (M.D.). *The Natural and Artificial Methods of Feeding Infants and Young Children*. Cr. 8vo. Pp. viii and 376, cloth, 7s. 6d. (Churchill.)

Cheyne, W. W. *Treatment of Wounds, Ulcers, and Abscesses*. 2nd ed. Cr. 8vo. Pp. 210. 3s. 6d. (Pentland.)

Craggs, J. G. *Trial Balances Made Easy: A New Method to Secure the Immediate Agreement of Trial Balances without Trouble*. Large 8vo. Pp. 46, cloth, 2s. 6d. (Scientific Press.)

Diet and Cookery for Common Ailments. By an F.R.C.S. and Phyllis Browne. 12mo reduced to 2s. 6d. (Cassell.)

Edmonds, H., and Marloth, R. *Elementary Botany for South Africa, Theoretical and Practical*. Cr. 8vo. Pp. 208. 4s. 6d. (Longmans.)

Melley, G. W. *The German Bogy: a Reply to "Made in Germany"*. Cr. 8vo. Pp. 108, sewed, 6d. (Cassell.)

Murrell, W. *What to do in Cases of Poisoning*. 8th ed. 32mo. Pp. 296. 3s. 6d. (H. K. Lewis.)

Perkin, W. H., jun., and Lean, B. *An Introduction to the Study of Chemistry*. Cr. 8vo. Pp. 360. 2s. 6d. (Macmillan.)

Smith, Thos., and Osborne, J. H. *Successful Advertising: its Secrets Explained*. 17th ed. Pp. 704. 8vo., cloth, 2s. (Published by the Authors.)

Stewart, C. E. *Law of Wills, for Testators, Heirs, and Legatees. (Wilson's Legal Handy Books.)* 4th ed. Post 8vo., limp cloth, Pp. xii and 155. 1s. 6d. (Edinburgh Wilson.)

Waller, A. D., and Symes, W. L. *Elementary Physiological Chemistry. (Exercises in Practical Physiology.)* 8vo., sewed, 1s. net. (Longmans.)

Trade Reports.

42 CANNON STREET, E.C., February 4.

THERE has been a very pronounced improvement in the Mining Lanc markets this week, and the chemical trade also appears in a fairly satisfactory condition. In heavy chemicals the principal alterations we have to report are a further advance in the prices of sulphate of copper and nitrate of soda. Arsenic remains extremely firm and scarce. Carbolic acid also is still tending upwards, although not very much business has been done in it lately. Glycerine lower. Acetic acid of all descriptions very weak. Chlorate of potash and yellow prussiate both remain firm, and the same applies to sulphur. There is a brisk trade in caustic soda. Sulphate of ammonia again easier. Benzol easier; while refined tar and pitch are at lower prices. In fine chemicals there have been several changes. Tartaric acid is firm, and tending somewhat higher. Citric acid shows no alteration. Early in the week a sudden decline of $1\frac{1}{2}d.$ per oz. was made in quinine by the manufacturers, bringing down the price of quinine in tins to $7\frac{1}{2}d.$ per oz., a price which it has never reached before. Within a day, however, the quotation changed again, and the market closes firm at $8d.$ Bismuth and bismuth salts in good demand. Refined camphor has been raised in price by $1d.$, but there has been a considerable drop in cocaine. To-day's drug-sales were fairly animated, the proportion of goods sold being larger than usual. The chief points of interest are as follows:—Socotrine aloes dearer. Ordinary Sumatra benzoin sold at a decline of about $7s. 6d.$ Medicinal balsams unchanged. Buchu-leaves are slightly dearer. Crude camphor has been in demand, and closes at firmer prices. In coca-leaves there has been a decline of $2d.$ per lb. Colocynth slow of sale and tending easier. Cubebs slightly steadier. Cardamoms sold irregularly, but mostly at a decline of $2d.$ per lb. Ordinary cascarilla is dearer. Croton-seed is about $4s.$ dearer. Ergot of rye is firmer. One of the principal features of the week has been the large turnover of East Indian and Persian acacia gums. The business done in East Indian amounts to several thousand packages, at a general advance of from $3s.$ to $7s. 6d.$ per cwt. Soudan gums have not been affected up to the present; they are too firmly held. Dragon's-blood sold at full prices. Galangal was dearer. Honey rather neglected. Higher rates for insect-flowers come from Trieste. Jaborandi-leaves quite neglected. Ipecacuanha a trifle dearer. Jalap, on the other hand, is about $1d.$ lower. Gum kino is gradually coming down in price. Kamala sold cheaply, and so did kola nuts. Myrrh is again easier. Musk still tending upwards. Nux vomica firmly held. In spite of arrivals, a considerable business has been done in cod-liver oil at lower rates, but prices close rather firmer. A large trade has also been done in Persian opium at rising prices. Essential oils do not show any alterations of importance. Dementholised Japanese peppermint oil and American HGH rather easier. Castor oil a shade firmer. Rhubarb sold well at full prices, and Jamaica sarsaparilla is $2d.$ per lb. dearer. St. Ignatius' beans $1\frac{1}{2}d.$ lower. Senna without alteration. Vanilla sold at a decline of $1s.$ per lb. on good qualities, and in beeswax there are no noteworthy changes. In dry-salteries, &c., we have to report a firmer market for shellac. Galls firm for Persian, steady for Chinese. Turmeric very firmly held. Spices have been rather excited; this especially applies to Zanzibar cloves, pepper, cassia lignea, and pimento; and in Cochin ginger there has also been a considerable amount of business. Linseed oil is about $3d.$ dearer. Rape oil steady, both for crude and

refined. Croton-seed oil unchanged. There is no alteration in palm, cocoanut or ordinary olive oils. Turpentine dearer at $20s. 6d.$ per cwt. Petroleum closes firmer, American at $5d.$ to $5\frac{1}{2}d.$ per gallon for ordinary, $6\frac{1}{2}d.$ to $6\frac{1}{4}d.$ for water-white, and Russian at $4\frac{1}{4}d.$ per gallon.

Our Hamburg correspondent wires on Thursday evening that refined Camphor has advanced to 2 95 per kilo. for bells.

Hamburg There is also a strong rise in *Pepper*, and an
Telegram. upward movement in most spices; but *Essential oils* generally remain dull of sale.

Our Smyrna correspondent wires on Wednesday evening:—
“Large sales of opium have been made this week to the

Smyrna American agents, but the prices are lower,
Opium 8s. 5d. per lb., f.o.b., being the parity at which
Telegram. fair *Manufacturing*, and 8s. 7d. per lb., f.o.b., that at which *Selected* opium has been sold.”

Our New York correspondent wires on Thursday evening:—
“There has been a decline of 3c. in *Quinine* and one of 25c.

New York in *Hydrochlorate of cocaine*. *Copaiba balsam* of
Cablegram. all varieties is advancing, and closes very firmly. *Peppermint* oil easier. *Senega* very slow of sale. Manitoba may be had at 28c. and Minnesota at 29c. per lb. *Mexican sarsaparilla* has declined 5c. per lb., on account of fresh arrivals. *Jalap*, on the other hand, closes firmly.

ACID ACETIC.—The convention price remains unchanged, but the article is very much depressed on account of the low value of acetate of lime, which is produced in ever-increasing quantities both in America and Europe.

ACID TARTARIC.—Firmer, at $1s. 1d.$ per lb. for B.P. quality from English makers, and $12\frac{1}{4}d.$ to $12\frac{1}{2}d.$ per lb. for foreign brands. Of *Cape argol* 46 packages sold at from 46s. for dark red to 53s. for good pale quality.

ALOES.—Of *Cape aloes* 62 packages were offered, of which 58 found buyers at first at a decline of about $6d.$ per cwt., but afterwards at steady prices. Good bright hard realised from 21s. 6d. to 22s.; fair, 20s. to 21s.; drossy and dull mixed from 19s. 6d. down to 17s. 6d. per cwt. *Curacao aloes* was represented by 68 packages, of which a portion packed in gourds sold at full valuations: 40s. per cwt. for good bright brown; 30s. for rather darker, and 14s. for ordinary Capey gum. Of *Socotrine aloes* 10 kegs of fine bright quality offered and sold readily at $6l.$ per cwt., which shows an increased value. Another parcel of 32 kegs from Bombay was bought in at $5l.$ per cwt.

ASAFOETIDA.—At auction to-day 36 packages were offered, and all bought in at full prices, ranging from 80s. per cwt. for nice pinky and yellow mixed loose drop, to 60s. for good soft mass, and 33s. for stony, partly pinky soft and blocky quality. Sales are said to be taking place daily at full prices.

BALSAMS.—Of *Balsam copaiba* 4 casks good bright Maranham were bought in at $2s. 5d.$ per lb., which is said to be the price; though holders stated that they are not anxious to sell. In *Balsam Peru* no further business is reported; 8s. per lb. is the nominal quotation for good quality. As reported in our Market Supplement of last week, the entire first-hand supply was bought up some days ago at prices upwards from 7s. per lb. *Tolu balsam* unchanged. Two cases were offered to-day without guarantee of purity, and bought in at $2s. 6d.$ per lb.

BENZOIN.—Of *Siam* gum only 1 case, small to medium fair loose almonds, was offered, and bought in at $19l.$ per cwt. *Sumatra* kind was represented by 426 packages, a quantity greatly in excess of requirements, and only 97 cases sold, mostly without reserve, at a decline of from 5s. to 7s. 6d. per cwt. on the commoner qualities. Good seconds, almondy centres, slightly false packed, realised $7l. 17s. 6d.$; fair ditto, rather more false packed, $6l. 10s.$ per cwt.; and a considerable quantity of ordinary woolly and dull thirds

from 74s. down to 50s. per cwt. Of *Palembang* 65 boxes were offered, of which 20 found buyers at from 21s. up to 24s. per cwt. for fair glassy almondy gum, the last-named price being subject to approval.

BISMUTH.—There has been a considerable trade in the metal and salts since the recent advance in price. It is stated that that advance was decided upon because the Bolivian producers think that they have effectively crushed outside competition by their low quotations. It is, however, hinted that if it should be found, in the course of two or three months, that the present advance is not bringing the outsiders back into the field, the quotation will in all probability be raised to the old figure of 7s. per lb. for the metal.

BUCHU.—The only arrival this week has been one of 3 bales, by the *Pembroke Castle*, from Cape Town. Buchu-leaves are rather scarce, and sold to-day at an advance of about $\frac{1}{2}$ d. per lb., 16 out of 28 packages finding buyers at from $2\frac{1}{2}$ d. for ordinary grey sound to $3\frac{1}{2}$ d. for fair yellowish-green ditto. Nothing was offered of good quality.

CALUMBA.—Extremely scarce for good natural root, which is nominally quoted at about 20s. per cwt., but none is offering. At auction a few parcels of partly-washed root were bought in at nominal rates.

CAMPHOR (CRUDE).—The position is much better—at any rate so far as appearances go. About 1,200 piculs are reported to have been sold within the past few days, at prices ranging from 92s. up to 94s. per cwt., c.i.f. terms, for *Formosa*, February-March shipment, and at from 95s. to 100s., c.i.f. for Japan, February-April shipment. It is reported that higher prices have since been paid for the *Formosan* variety, but we have not been able to confirm this. At any rate, there are now no sellers of *Formosa* under 96s. to 97s., c.i.f., or of *Japan* under 102s. 6d. for early shipment. At auction 99 cases of *Formosa* camphor, fair quality, were bought in at 110s. per cwt.; no bids were made for the lot. We hear from China that the production of *Formosa* camphor is still increasing, and that the stocks at the shipping ports are accumulating heavily. At the beginning of the year the market was weak, with sellers at low figures, but no buyers.

CAMPHOR (REFINED).—The advance foreshadowed in our last issue took place on Wednesday, so far as the English manufacturers are concerned, a rise of 1d. per lb. being declared on that day. Their present quotations are as follows:—Bells, 1s. 6d. per lb. for small wholesale quantities, 1s. 5½d. per lb. for ½-ton lots, and 1s. 5d. per lb. for 1-ton lots; flowers, 5 or 10 lb. boxes, 1s. 6d.; 10-lb. tins, 1s. 6½d.; 1-lb. boxes, 1s. 7d.; squares, according to size, from 1s. 6d. to 1s. 8d. per lb. for ordinary wholesale quantities, and subject to a reduction of $\frac{1}{2}$ d. for 10-cwt. and 1d. for 1-ton lots, with delivery c.i.f. British India, Australia, or Canada. The foreign manufacturers' agents had no news of an advance in price on Wednesday afternoon, but they would no longer sell at the old quotations, and to-day they have also raised their prices by 1d. per lb.

CANNABIS INDICA.—Fourpence a pound is the lowest price one holder is inclined to take for dusty fair green mixed tops. A parcel of 51 cases, advertised for to-day's auctions, was not landed in time to be offered. Another parcel of 35 bales of very dusty partly stalky herb sold at 1s. per lb.

CARDAMOMS.—Sold at very irregular prices, mostly from 2d. to 3d. per lb. lower. The following are the quotations:—*Ceylon-Mysore*, fine to bold round, 3s. 5d. to 3s. 7d.; medium to bold bright pale, 3s. 1d. to 3s. 3d.; long round mixed ditto, 3s. to 3s. 1d.; small to medium pale round, 2s. 7d. to 2s. 10d.; very small pale, 2s. 3d. to 2s. 4d.; brown and partly split, specky, mixed sizes, 2s. 2d. per lb. *Ceylon-Malabar*, medium to bold brownish, good, 2s. 10d. to 3s.; small to medium dark, 2s. 5d.; ordinary dull brown, 2s. 3d. per lb. *Seed* was in good request, and realised from 4s. 1d. to 4s. 2d. per lb., while one holder stands out for 4s. 3d.; fair to ordinary mouldy *wild Ceylon* cardamoms realised from 1s. 5d. to 2s. 9d. per lb. The *Staffordshire* has brought 17 cases from Colombo. That has been the only arrival this week.

CASCARILLA is dearer. Of 58 packages offered to-day only 6 found buyers at 35s. per cwt. for small thin brown bark.

CINCHONA.—At auction *South American* barks were fairly well represented; a parcel of 50 serons *Guayaquil-Loza* fair, partly thin and coarse mixed, sold readily at low prices—viz., 8½d. to 9½d. per lb. Three packages ordinary *red* bark of poor colour were bought in at 1s. per lb., while 31 bales of cultivated flat *Bolivian-Calisaya* sold at 1s. 4d. per lb. for sound, 1s. 1d. to 1s. 3d. for slightly damaged, and 8½d. to 9d. per lb. for ordinary damaged quality. Forty-two bales fair *Maracaibo* were bought in at 8d. per lb., and of 69 bales *Carthagena* 16 rather damaged sold at 4d. per lb.

COCAINE.—Exactly a week after the last reduction there has been a further decline in the combination price of cocaine by 1s. 9d. per oz., the quotations being as follows:—

	Hydrochlorate			Pure Alkaloid		
	Present Price	Jan. 25 1897	Jan. 13 1897	Present Price	Jan. 25 1897	Jan. 13 1897
Under 25 oz.	s. d. 8 10	s. d. 10 7	s. d. 11 2	s. d. 11 1	s. d. 12 10	s. d. 13 1
25-100 oz.	s. d. 8 8	s. d. 10 5	s. d. 11 0	s. d. 10 11	s. d. 12 7	s. d. 13 3
100 oz. or over	s. d. 8 6	s. d. 10 10	s. d. 10 10	s. d. 10 9	s. d. 12 6	s. d. 13 5

COCA-LEAVES were in very heavy supply to-day, no fewer than 175 packages *Truxillo*-leaves being offered; 59 of these sold at a decline of from 2d. to 3d. per lb., namely, 5½d. and 6d. for good green, 4½d. for fair ditto. Part of the parcels is held for high prices, namely, 11d. for good quality. There are large stocks of this article in America.

COLOCYNTH.—Dull of sale, and tending rather easier. The nominal quotation for fair to good pale *Syrian* apple runs from 1s. 6d. to 1s. 10d. per lb., according to holder. There has been an arrival this week of 31 packages of *Syrian* colocynth from Marseilles by the *Memphis*. We understand, however, that a great part of this has been sold for arrival and will not be offered at auction. Of 11 cases *Syrian* apple offered to-day only 1 sold, at 1s. 7d. per lb. for rather broken quality. The remainder was held at 1s. 8d. per lb. Of 33 boxes *Spanish* colocynth only 3 sold, at 10d. per lb. for rather dull and seedy quality. Good pulp from *Almeria* is quoted at 5s. per lb.

CREAM OF TARTAR is again about 1s. higher, although there has been very little business in the article lately. The quotation for best white *French* crystals is now 77s. per cwt., f.o.b. Bordeaux. Last week 75s., f.o.b., would have been accepted. On the spot the market is very firm, at 82s. per cwt. for crystals, and 83s. per cwt. for powder.

CROTON-SEEDS.—Fully 5s. per cwt. dearer. For 6 bags of fair quality, from Ceylon, shown to-day 88s. per cwt. was paid.

CUBEBS.—Are somewhat more firmly held, although in large supply. At auction about 247 packages were offered, of which 42 sold at 30s. per cwt. for fair sifted bold berries; 29s. for good slightly stalky mixed, and 21s. for very small ordinary dusty and stalky. The position of the drug is described as much improved, but consumers do not seem to attach much value to that statement.

CUTTLEFISH.—Eighty mats good but rather broken white cuttlefish-bone from *Bombay* sold cheaply at 2½d. per lb.

DRAGON'S-BLOOD firmly held. Of five cases two sold at 6l. 17s. 6d. per cwt. for fair red lump.

ERGOT OF RYE is decidedly firmer for the *Russian* variety, of which 50 bags were offered to-day. Twenty-five bags of fair, but slightly wormy, quality sold at 6½d. to 6½d. per lb. Of *Spanish* ergot 42 packages were shown; fine quality was bought in at 10d. per lb. For good bold, slightly wormy, a bid of 6d. was refused. Four packages of fair quality sold at 7d. per lb.

GALANGAL.—Good quality is very scarce and was held for higher prices; 40 bags were shown to-day, and for these a bid of 26s. per cwt. was refused, 30s. being the price.

GAMBOGE unchanged. Of 20 cases offered only two sold, at 8l. per cwt. for fair mixed, partly broken and blocky pipe. The remainder was bought in at 9l. per cwt.

GLYCERINE is extremely dull, but it is still stated that as soon as fresh demand arises from America prices will improve. In the meantime an English maker recently quoted 66*l.* per ton for best double-distilled, s.g. 1.260, while for *Lever's* brand 68*l.* per ton is asked. One of the foreign makers has also recently lowered his quotation to 65*l.* per ton to meet English competition. The others, however, still hold at the old figures.

GUM ACACIA.—A very large business has been done in *East Indian* gums during the last few days at rapidly advancing prices, the increase in quotations amounting to 10 or 12 per cent. all round, or, say, 5*s.* to 7*s.* 6*d.* per cwt. on the better qualities. It is said that of *Ghatti* gum alone over 2,000 packages have changed hands at from 24*s.* up to 29*s.* per cwt. for ordinary to fair quality. Picked *Ghatti* is now held at 45*s.* per cwt., and there is a rumour to the effect that a fine lot has been sold at 51*s.* per cwt. *Oomra* kinds have been sold at from 32*s.* up to 35*s.* per cwt., unsifted *Cawnpore* at 33*s.* per cwt. (36*s.* has since been paid), and *Brown Amrad* at 31*s.* to 32*s.* per cwt. There has also been a big business in *Persian* gum. The demand for this variety shows an extraordinary increase. The gum is almost all sent over to Germany to be made soluble, and thence brought into trade, mainly for use in textile industries. It is said that gum which, when insoluble, costs from 15*s.* to 22*s.*, realises as much as 65*s.* per cwt. after being treated. For *Soudan* sorts rather lower prices have lately been accepted by some holders; 55*s.* per cwt. is the nominal quotation for ordinary hard, while fine pale soft runs up to 80*s.* per cwt. The stock is rather large. Of *Trieste* picked gum there is not a very large supply, but the demand is practically absent. At auction four bales good pale *Soudan* sorts sold, subject to approval, at 89*s.* per cwt.

GUM EUPHORBIVM remains very cheap, the supply being apparently in excess of the demand. At to-day's auctions, however, 8 out of 10 bales sold at the low figure of 12*s.* per cwt. for good clean gum mixed with wood and dust.

HONEY.—Rather neglected. At to-day's sales the assortment was a very poor one; the only parcel sold consisted of good thick candied, pale to yellow, *New Zealand* honey, for which from 39*s.* 6*d.* to 40*s.* was paid. Twelve packages *Jamaica* were bought in, and for 70 cases pale candied *Californian* 40*s.* per cwt. is the limit.

IPECACUANHA.—Of *Brazilian* root 58 bales were offered to-day. There was more disposition to sell on the part of holders, and 42 bales changed hands at firm prices to an advance of about 1*d.* per lb. Fine plump root realised 6*s.* 3*d.* per lb.; good, partly stout, sound and slightly damaged, from 5*s.* 7*d.* down to 5*s.* 4*d.* per lb.; ordinary common woody (sold without reserve) from 4*s.* 11*d.* down to 3*s.* 8*d.*; and very common, mostly wood, 1*s.* 7*d.* per lb. No *Carthagena* root was sold, six bales of this variety being all bought in without mention of price. We have to report an arrival of 15 bales of *Brazilian* root by the *Thames*.

JABORANDI-LEAVES.—In large supply and very low in price. The bulk of the parcels offered, however, was of poor quality. Two bales false jaborandi, imported *via* Buenos Ayres, sold to-day, subject to approval, at 1½*d.* per lb., and for another lot of 5 bales no bid could be obtained at 2*d.*

JALAP is about 1*d.* lower; 50 bales sold readily to-day at 5½*d.* per lb. for small to bold brown heavy mixed *Vera Cruz*, and 5*d.* per lb. for damaged and wormy ditto.

KAMALA.—Neglected at low prices. Of 20 cases 9 sold at 5*d.* per lb. for good quality, and 2½*d.* per lb. for ordinary dusty, the last-named price being subject to approval. The remainder is limited at 8*d.* per lb.

KINO.—It is said that for the present there is no fine *Cochin* kino to be had. Two cases of a red African gum, to which we have previously called attention, were shown to-day; the broker said he was constantly selling parcels of it, but at auction no one would buy. The price has now gone down to 5*s.* per lb.

MUSK.—Is extremely firmly held, and it is confidently asserted that prices will be much dearer soon. Of first pile *Tonquin* pods two tins fine small to bold fairly dry, blue skin and under skin, well-trimmed were bought in at 95*s.* per oz., while 2 tins unsorted partly spurious, partly good thin blue skin pods realised 60*s.* per oz. For three bottles of grain

musk a bid of 12*s.* per oz. was refused, while another lot sold at 25*s.* per oz. Ordinary empty musk skins realised 2*l.* per oz.

MURRI is still tending downwards, the supply being very large, 125 packages being shown to-day. Of these 47 sold at 85*s.* per cwt. for fair native picked; 39*s.* to 40*s.* for good chips and siftings; 50*s.* per cwt. for fair sorts. A lot of fine pale selected gum was bought in at 9*l.* per cwt. For another lot of native picked gum 77*s.* 6*d.* was bid, which may possibly lead to business.

NUX VOMICA.—Tending higher. An arrival of 500 bags has just taken place, but notwithstanding that, the high figure of 9*s.* per cwt. was named as the price for 40 bags fair pale but very small seed shown to-day.

OIL (CASTOR).—*Italian* oils have recovered somewhat again from their recent depression. Fine tasteless is quoted at 41*s.*; water-white 40*s.* per cwt. c.i.f., London. *East Indian* oil is very firm at 4½*d.* per lb. for first, and 3½*d.* to 3½*d.* per lb. for second quality. A parcel of 30 cases pale first *East Indian* was shown to-day. It is held for 4½*d.* per lb.

OIL (COD-LIVER).—The market is very unsettled; most agents describe it as "sick," but one dealer reports sales of over 100 barrels of old *Norwegian* oil at firm prices. It is almost impossible to obtain exact quotations. The general range of prices is from 110*s.* to 115*s.* per barrel for fine old, and about 120*s.* per barrel for ditto new oil, all on the spot. The sales referred to, however, were probably made below these quotations. We hear, in fact, that further sales of best non-congealing old *Tromsø* oil have been made to-day at 105*s.* per barrel. At auction three barrels marked "pure cod-liver oil," of *Norfoandland* variety, sold without reserve at 2*s.* 5*d.* per gallon, about half the usual price. Another lot of 58 casks *Norfoandland*, which was to have been offered without reserve, was taken out of sale. With regard to the present fishing season in Norway, it has been pointed out to us that the first genuine oil cannot be expected to arrive here until after another three weeks or so, as in the principal district the fishing has not even commenced yet.

OIL (OLIVE).—Eating-oils have recently considerably advanced in value. Good quality, which was quoted at 44*l.* per ton, c.i.f., last season, now realises 50*l.* per ton.

OILS (ESSENTIAL).—*Star-anise* oil is firm, but rather quiet on the spot with buyers at 6*s.* 7½*d.* per lb. For arrival the quotation is 6*s.* 2½*d.* per lb. c.i.f. *Cassia* oil rather firmly held. There are buyers but no sellers for arrival at 5*s.*, c.i.f., for 70–75 per cent. oil. The asking price, however, is 5*s.* 2½*d.* per lb. c.i.f. At auction to-day a bid of 5*s.* 3½*d.* per lb. was refused for 10 cases of 54 per cent. oil, for which the owner requires 6*s.* 3½*d.* per lb. Of *Star-anise* oil 16 cases were offered. Someone bid 6*s.* 3½*d.* per lb., and this is to be submitted, but meanwhile the lot was bought in at 6*s.* 10*d.* per lb. A case of distilled *Oil of Limes* (W. I.) sold to-day at 2*s.* 7*d.* per lb., a decline of about 9*d.* per lb. upon the previous market value. Of *Fishers' Nutmeg* oil 4 cases sold very cheaply at 3½*d.* per oz. (without reserve). Three cases dementholised *Japanese Peppermint oil* (Kobayashi) only realised 2*s.* 5*d.* per lb., a considerable decline. Another parcel of 18 cases dementholised oil was bought in at 3*s.* per lb. Several parcels of *Cinnamon oil* and *Bombay rose oil* were bought in, the former at 7*d.* per oz., the latter at 4½*d.* per oz. *Eucalyptus oil* is still in large supply. Fifty-one cases were all bought in to-day. For 62 per cent. *Platypus oil*, 1*s.* 11*d.* per lb. is said to be the bottom price. Two cases of 50 per cent. *Risdonia oil* were bought in at 1*s.* 9½*d.* per lb., and for another lot of 3 cases 1*s.* 1*d.* per lb. is asked. *Ylang-ylang* of first quality was bought in at 4*s.* per oz., second at 3*s.* per oz. 15 cases of *Fisher's Citronella oil* was bought in at 2½*d.* per oz. *American oil of peppermint* is again easier, HGH offering at 7*s.* 4½*d.* per lb. on the spot. The *Italian* essential-oil market is somewhat firmer, the quotation for new *Oil of lemon*, according to brand, running from 2*s.* 9½*d.* to 4*s.* per lb., f.o.b.; for *Bergamot* from 5*s.* 2½*d.* to 6*s.* 6*d.* per lb., f.o.b., is quoted; and for *Sweet orange* from 4*s.* 9½*d.* to 5*s.* 9½*d.* per lb., f.o.b.

OPIMUM.—Steady with a moderate demand. Good to fine *Soft shipping* is quoted at 11*s.* to 13*s.*; fine *Druggists' kinds* at 9*s.* to 9*s.* 3½*d.*, and *Druggists' seconds* at from 8*s.* to 8*s.* 6*d.* per lb. A large business has been done in *Persian* gum lately at prices ranging from 8*s.* for fair quality upwards to between 9*s.* and 9*s.* 9½*d.* for good kinds, the last-named quota-

tion showing some improvement. The market closes firmly at 10s. per lb. for fine quality. The business referred to is mainly of a speculative character.

ORANGE-PEEL remains low in price. Of 24 packages shown to-day, 6 realised 5*d.* per lb. for fair *Tripoli* strips, and 6½*d.* for good *Malta* ditto.

QUININE.—On February 1, to everyone's surprise, the quinine-makers reduced their prices by about 1½*d.* per oz. all round. The official quotations were then as follows:—*Howards'* in tins 9*d.*, in vials 10½*d.* to 11½*d.* per oz.; *Whiffen's* in bulk 8*d.* per oz.; *Imperial* in bulk 8*d.* per oz.; *Pelletier's* in vials 1s. 3*d.* per oz.; all the *German* brands 8*d.* per oz. The *German* makers, however, accepted 7½*d.* per oz. for contracts (a figure never known before), and a large business was immediately done. On Wednesday they raised their lowest quotation again to 8*d.* per oz., evidently taken by surprise at the readiness with which buyers availed themselves of the chance of buying at 7½*d.*, and to-day they will not even book firm orders at 8*d.* per oz. It is computed that about 200,000 ozs. have been sold at 7½*d.*, and 50,000 at 8*d.* per oz. The makers, however, were very careful not to sell to speculators so far as they could avoid it, and in many instances they refused contracts on that account. The falling clause remains in force until further notice. The reduction seems to be entirely due to the competition of new European and Java quinine manufacturers. In Amsterdam prices were put down by 3.25 fl. per kilo., making ordinary bulk quinine 13.50 fl. per kilo. It is worthy of note that on the same day when the quinine prices were thus reduced, a cablegram was received from Java announcing that the cinchona bark shipments for the month of January had fallen to about one-third of the average, the figures being as follows:—

	1897	1896	1895	1894	1893
Amsterdam lbs.	390,000	970,000	657,000	893,000	900,000

The stock of Cinchona bark in Amsterdam is small, that of workable manufacturing bark in London insignificant. The stock of sulphate of quinine in the London warehouses has been much reduced. It was 85,145 lb. on February 1, against 122,743 lb., 168,848 lb. and 200,873 lb. respectively on the same date of 1896, 1895 and 1894.

RHUBARB.—The position of the article seems to be very sound. It is steadily asserted that it can be laid down from China at remunerative prices at the present London market conditions, and, at the same time, it is worthy of note that the London stock is now smaller than it has been for many years, the stock at the public warehouse on February 1 being only 389 cases, against 887, 972, 856, 977, and 447 at the corresponding date of the preceding five years. At auction one of the brokers made much of the favourable position of the article, and strongly recommended buyers to lay in a supply. Whether it was that this advice fell on good ground or for other reasons, the demand certainly was pretty brisk, and of 58 cases offered 39 sold at very full to slightly higher prices as follows:—*Shensi*, medium to bold round, good coat and fracture, 1s. 10*d.* per lb.; medium round, rather grey fracture, 1s. 3*d.* per lb. *Canton*, medium to bold round, fair coat, pinky-grey fracture, 1s. 3*d.*; small to medium flat, good coat and fracture, 1s. 2*d.* to 1s. 3*d.*; small to medium flat, fair coat, grey fracture, 1s. 2*d.* per lb. *High-dried*, of which only one or two good parcels are said to be in London, small to medium fair, partly rough coat, pinky-grey fracture, 1s. per lb.; small to medium, dark coat and pinky-grey fracture, slightly wormy, 10*d.* to 10½*d.* per lb. For a good bright bold lot a bid of 1s. 1*d.* was refused, 1s. 2*d.* being the quotation.

SARSAPARILLA.—Of grey *Jamaica* 8 bales were offered to-day, and sold with good competition, at an advance of 2*d.* per lb.—namely, from 1s. 7*d.* to 1s. 8*d.*, for good but slightly damaged. For 1 bale good red *Jamaica*, 1s. 4*d.* is required, whilst 10 bales damaged *Lima-Jamaica* sold at last auction-rates—namely, 1s. 1*d.* to 1s. 2*d.* per lb. Of *Honduras sarsaparilla*, 16 serons were bought in, 1s. 1*d.* per lb. being the price for fair quality.

SHELLAC has been in good demand privately, both for second *Orange*, of which about 300 cases sold at steady rates, 73s. per cwt. being the spot quotation for *TN.* and for *Garnet* lac, of which the same quantity changed hands at 74s. per

cwt. for *AC.* For February delivery 500 cases *TN* have changed hands at 72s., and for May delivery 200 at 75s. per cwt. The market for shipment is also dearer.

SOY.—*Chinese* has sold recently at the somewhat reduced quotation of 9½*d.* per gallon, but the general price remains 10*d.* per gallon.

SPERMACELE.—*English* refined has recently been somewhat lower in price, and business has taken place at 1s. 4½*d.* to 1s. 4½*d.* per lb.

SPICES show a firmer tendency all round. In *Ginger* there has been a large demand for the *Cochin* variety, with sales at from 28s. 6*d.* up to 33s. per cwt. for good washed rough, and at 36s. to 37s. for small native cut. At auction *Cochin* showed a very firm tone, but only small sales were made; fair small to medium cut at 62s. 6*d.*; ordinary small to medium native cut, limed, 52s.; fair ditto, 56s.; cuttings to ordinary small rough washed, 20s. to 30s. 6*d.* *Jamaican* ginger, however, is lower, 50 barrels being sold at 81s. for fair small washed, and 55s. 6*d.* to 61s. for ordinary small dull and lean. There has also been a much firmer tendency in *Pepper*, in which a large business has been done at rising prices. In black pepper, however, the market closes quieter, with sellers of *Singapore* for March-May shipment at 3½*d.* per lb. Business has been done in black *Tellicherry*, March-May steamer shipment, at 3*d.* per lb. London terms. White pepper is very firmly held, and on the spot from 4½*d.* to 5½*d.* per lb. has been paid for good dull to bold *Singapore*. *Penang* white pepper has sold for March-May shipment at 4½*d.* c.i.f. to 4½*d.* c.i.f. *Pimento* is also rather dearer, with sales of fair clean to good coarse on the spot at 2½*d.* to 2½*d.* per lb. *Zanzibar* cloves have fluctuated, but close active at a considerable advance. Several thousand bales have changed hands during the week, the latest quotations being as follows:—March-May, 2½*d.* to 2½*d.*; April-June, 2½*d.*; June-August, 2½*d.* to 2½*d.* per lb.; Feb.-April, 2½*d.* *Cassia lignea* has also been in strong demand, and closes at 40s. per cwt. for good quality. Other spices show no improvement.

SQUILLS in fairly large supply, but only the commoner grades sold at 1*d.* to 1½*d.* for ordinary quality; good pale was held for 3*d.* to 3½*d.* per lb.

ST. IGNATIUS BEANS.—At to-day's auctions there was a further arrival of 19 cases good quality from *Manilla*. These realised only 4½*d.* per lb., showing a decline of 1½*d.* on last auction rates. It is said that 4 tons of St. Ignatius beans are on the way from the East, but we do not know whether the lot sold to-day was part of this parcel. It is added that further lots are ready for shipment.

VANILLA.—About 190 tins were partly sold to-day at a decline of 1s. per lb. for good quality. Ordinary grades, however, were unchanged. The present London stock is only 240 tins, of which less than 150 are in first hand.

VERMILION.—Sales of *Chinese* vermilion have been made this week at 2s. 5*d.* per lb. for good brands.

WAX (BEES') shows little alteration, although the market is perhaps a little easier. Of *Madagascar* wax nearly 500 packages were offered at auction, of which about 77 sold at from 5*l.* 10s. per cwt. for ordinary dark, to 6*l.* 10s. for fine bright quality. Of 9 packages *Jamaica* wax, 7 realised from 7*l.* 15s. to 8*l.* 5s. for brown to good bright red mixed. One case of fine yellow *Antigua* sold, subject to approval, at 8*l.* per cwt. Eleven bales bright yellow *Italian* were bought in at 7*l.* 5s. For good bright *Calcutta*, 6*l.* 10s to 7*l.* per cwt. is asked. Of 129 packages *Zanzibar* wax, 11 sold at from 5*l.* 17s. 6*d.* to 6*l.* for fair quality, 5 being bought in at 6*l.* 10s. The quality of this variety is said to have shown considerable improvement recently. Fine *Mogadore* wax was bought in at 6*l.* 10s. per cwt., whilst 1 parcel *Mazagan*, apparently very impure, was bought in at 6*l.* 5s. per cwt. Of *Australian* beeswax, 21 packages were offered; but only 4 sold at 6*l.* per cwt., for rather ordinary grey quality, and 1 case very greasy greenish wax sold without reserve at 42s. 6*d.* per cwt.

WAX (JAPAN).—Quiet, at from 39s. to 40s. for yellowish squares (business having been done at those prices) up to 42s. 6*d.* for good pale ditto. At auction to-day 50 cases were shown, of which 20 sold at the reduced figure of 38s. per cwt. for fair polish squares

Heavy Chemicals.

There are few alterations of moment to report in the heavy chemical market this week. The better feeling noted for the past few weeks, however, continues, and the general demand for most products is fairly brisk. A point of interest which may be mentioned is a rumour to the effect that the United Alkali Company has acquired a large property on the Thames, which points to the probability of that company commencing the production of chemicals there. We can also report that the wages question at the Allhusen Works (Gateshead) of the United Alkali Company has been settled. *Sulphate of ammonia* is lower, with a quiet demand, and its present position is not very encouraging; Beckton terms: 7*l.* 15*s.*; Beckton, May-August, 7*l.* 17*s.* 6*d.*; Leith, 7*l.* 15*s.*; London and Hull, 7*l.* 16*s.* 3*d.* *Benzols* are quiet, with quotations firm for forward delivery; 90 per cent. prompt, 3*s.* 6*d.*; March-June, 3*s.* 4½*d.*; 50 per cent. prompt, 2*s.* 11*d.*; forward, 2*s.* 10*d.* *Cream of tartar* a trifle firmer; powdered, 82*s.* to 83*s.*; crystals, 80*s.* to 81*s.* *Sulphate of copper* has advanced still further, and demand is brisk; Anchor, 20*l.*; Liverpool, 19*l.* to 19*l.* 10*s.* *Nitrate of soda*, ordinary and refined, very firm. *Carbolic acids* steady, with higher value; crude 60 per cent., 2*s.* 1½*d.* to 2*s.* 2*d.*; and 75 per cent., 2*s.* 6*d.* to 2*s.* 7*d.*; crystals, 34-35° C., 7*d.*; and 39-40° C., 7½*d.* to 7¾*d.* *Anthracene* unchanged. *Pitch* is weak, and has declined to 24*s.* f.o.b. *Refined tar* downward tendency, 9*s.* 9*d.* to 10*s.* per barrel. A fairly heavy demand and large inquiry exists for *Caustic soda*, both 60 and 70 per cent., more especially for export. *Bleaching-powder* somewhat quieter, but no change in price. *Recovered sulphur* firm, owing to scarcity; and *South Durham salt* is moving freely. *Chlorate of potash* firm at unchanged rates. *Yellow Prussiate of potash* firm, at 6*d.* per lb. *Borax* and *Boracic acid* weak. *Linseed* and *Cottonseed cakes* firm, and moving freely. *White powdered Arsenic* in strong demand.

The Liverpool Drug-market.

Our Liverpool correspondent, writing on February 3, says that *Acacia gums* are a little inclined to assume a firmer position, Sudan sorts being sparingly offered, although sellers would probably still entertain late rates. Medium qualities offer in a very limited variety, and a good business has been done in Niger gum on private terms. *Castor oil* has steadily improved during the week, and now 3*d.* is the price of good seconds Calcutta, with every prospect of better prices still in the near future. First pressure French fetches 2½*d.* to 2¾*d.* per lb., and Madras has been sold at 3¼*d.* per lb. *African Ginger* has sold at 21*s.* 6*d.* for sound Sierra Leone, and a large parcel of Monrovia fetched 16*s.* per cwt. Considerable transactions has taken place in the lower grades of *Honey* for export at about late rates. *Sulphate of copper* is very firm at 20*s.* per cwt., and makers and holders talk of yet better figures for this article as the season advances.

The Hamburg Drug-market.

Our Hamburg correspondent writes on February 2:—"Business in general is very quiet here; the severe winter weather has stopped navigation into the interior altogether, and the strike is not yet finished. At the last meeting of the strikers only 28 per cent. of the men declared themselves ready to take work up again, while 72 per cent. voted for the continuation of the strike. The drug-market is quiet; only *refined Camphor* shows a brisk business at advanced prices with buyers at 285*m.* per 100 kilos. *Antimony* has remained unchanged at 37*m.* per 100 kilos. *Citric acid*, 241*m.* per 100 kilos. *Tartaric* firmer, at 235*m.* per 100 kilos.

Cod-liver Oil in Norway.

Our Bergen correspondent writes under date January 30:—"There has been no business whatever on our market, as people are generally awaiting further particulars concerning the new fishing. From the outlying districts, where alone fishing is proceeding at present, the news is fairly promising, both as regards the quantity of fish caught and the quality of the livers. In the Lofoten district, however, no fishing has yet taken place. Up to the present about 500 barrels of new oil have been made, against 200 barrels at the corresponding time of last year. Old non-freezing oil offers at 110*s.* per barrel, f.o.b.; for new the quotations are nominal. The exports from Bergen since the beginning of the year have been 277 barrels, against 274 barrels last year."



In writing letters for publication, correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

The Dangerous Doctor.

SIR,—This was the experience of a friend of mine the other day:—A woman enters the shop, "Two pennyworth of laudanum, please." "Yes; what do you want it for?" "The doctor told me to get it." "How were you to use it?" "He told me to give the child two drops in its milk." "Oh! who was the doctor?" "Dr. —" naming one with a practice of twenty years' standing, and with the letters M.B. and C.M. after his name.

A little of the advice and instruction as to the conduct of our businesses, so freely given to us by coroners and their juries, might not be out of place in such a case as this.

W. (22/23.)

Profits on Proprietaries.

SIR,—Some time ago you were kind enough to insert a few remarks from me, when the proprietors of Carter's liver pills suddenly raised their wholesale prices and left such a miserable profit to retailers of their proprietary.

I note the proprietors of Allcock's plaster are now to advertise their plaster to be sold at 7½*d.*, while the keenest wholesale price, by the two dozen, is 6*s.* 3*d.*

Now, this handsome profit (!) may please the big cutting-stores, but I venture to say it will not please those who have been fortunate enough to obtain 9*d.*, and even 10½*d.*, for this plaster. I mean more than ever to introduce paying specialities, and give as little room and encouragement to non-profitable proprietaries as possible. I hope my brethren in trade will do likewise.

Fraserburgh.

Yours truly,

J. A. ROBERTSON.

More than we Thought.

SIR,—In your article under the name of "Company Chemists," appearing in THE CHEMIST AND DRUGGIST of January 30, you say that "this company runs fourteen establishments."

Please note that Parke's Drug Stores (Limited) have fifteen establishments, five of which have been opened within the last twelve months.

Yours faithfully,

PARKE'S DRUG STORES (LIMITED).

J. MURISON, Managing Director.

German Competition.

SIR,—Allow me to express my compliments on your this year's issues of the DIARY and Winter Number: both get-up and contents are very excellent. Will you allow me to make some remarks on a topic which appears to excite the general interest of the British public at present—viz., the German competition? It appears to me that it is generally overlooked that if, on the one hand, German industry has developed to a remarkable extent and its export trade has considerably increased during late years, so the purchasing-power of the German nation has increased very much, and of all those who benefit from this must be counted first of all the British manufacturers. I speak here from my own experience in my own line of trade. Cologne is certainly known as a centre of perfumery-manufacturers, and while in former years we held our own, we owe it to the greater purchasing-power and the consequently increased love for luxuries, that we now meet British competition everywhere. It is not very long ago that you would have looked in vain for English perfumery

in this city. Now you find hardly a perfumer's or druggists' shop where you would not see a fine display of the productions of Gosnell, Breidenbach, the Crown Perfumery Company, Atkinson, and others; while for soap Cleaver, Vinolia, and of, course Pears, figure everywhere; so that it ought not to give astonishment that our own 4711 brand should be found in the world's centre, London. There are at least two pharmacies in town well stocked with all the better descriptions of English proprietary articles and patent medicines and Hockin-Wilson's surgical instruments can be bought at the leading depôt in that line here. As I said before, I do not speak of other trades than those related to my own. Some English gentlemen, visitors I had some little while ago, were loud in their surprise to find a stock of British goods of nearly every description and of a really first standard of value too.

So I think there need not be much alarm at our competition, for your saying that competition is the soul of business appears certainly to come true.

I am, dear Sir, yours truly,

Gegenüber dem Friesenplatz. JOHANN MARIA FARINA.

Advertising-ideas.

SIR,—We observe in the list contained in your issue of to-day, that some of your readers consider that our palatinoids and cream-of-malt products might be better advertised.

We would like to point out to you, for your information, that ours is a rapidly growing business, and we have as much as we can do to attend to the manufacture and production of the various preparations suggested to us by the members of the medical profession; but if any of your readers can sketch for us any special forms for advertisements likely to be attractive, we shall be pleased to receive particulars of same, and remunerate any of our friends in the trade whose suggestions we adopt for the trouble they have taken.

We are, dear Sir, yours faithfully,

OPPENHEIMER, SON & CO. (LIMITED).

January 30.

A. W. BALL, Director.

The Russ'ian Cancer-remedy.

SIR,—In his quotations from Holland's Pliny, Mr. Bell has overlooked the most important one of all—the one, that is, which makes such extravagant claims for celandine that old Gerard felt constrained to protest against them. In chap. 8 of Book xxv. there is the following:—"There be other living creatures besides men, to which we attribute the invention of herbs; as first and principally the great celandine, called in Greek *chelidonia*, for that the old swallows with the help of this herb, helpe their young ones to see again, yea though their eies were plucked out of their head."

Another legend is to the effect that the swallow renews the eyes of its young by means of a stone called *chelidonium*. Culpeper, in his "School of Physic," says:—"If you take young swallows out of their nest before the full moon, you shall find two little stones in their ventricles, the one reddish, the other black. These ought never to touch the earth, but be kept close wrapped up in Bullock's or Stag's leather. The former being bound under the armholes, helps the falling sickness; the other, Fevers. Some say if you prick out their eyes, the old ones will bring a stone which will renew their sight, and some say she doth it by Celandine. The stone will remain in their ventricle. I have tried this. I prick out the eyes of some in a nest and not of others and I found the reddish stone in the ventricle of one whose eyes I pricked out, and she could see again, but in those whose eyes were not pricked out, there was none." There was no S.P.C.A. Society in those days, alas!

Pliny also mentions the stones. "In the maw or stomacke of swallow's young birds there be some certain little white stones or else of a reddish colour, called thereupon *chelidonii*, and they be in great request in art magicke, namely for charmes and enchantments."—Book xi., chap. 37. But in another place he describes them quite differently. "As for the stone *chelidonia*, there be two sorts of it, in color they do both resemble the swallow and of one side, which is purple, you shall see black spots intermingled here and there among."—Book xxxvii., chap. 10.

Well has Pliny's "Natural History" been described as the repository of all the errors of antiquity.

Yours truly,

C. S. ASHTON.

Brighton, February 2.

DISPENSING NOTES.

"Clear or Cloudy."

SIR,—“Salisbury” will have no difficulty in obtaining a clear solution if he uses crystal sodæ pot. tart. instead of powder. Powdered chemicals as obtained from wholesale houses frequently produce cloudy solutions; probably due either to over-drying or to the incorporation of substance worn off the grinding-surfaces of the drug-mill.

R. H. PARKER.

35 Clifton Road, Maida Vale, W., January 22.

Varnishing Phosphorus Pills.

SIR,—In answer to “Nemo,” I have just made six dozen (phosphorus gr. $\frac{1}{10}$, quinin. sulph. gr. ij., reduced iron gr. j.) pills. I used phosphorated suet, 1 in 10 (Martindale), massed with mucilage and compound tragacanth-powder; when firm, varnished with a solution of gum-juniper in absolute alcohol, and obtained an excellent result. I have made pills as above frequently, and always without the least trouble. I think the ether-varnish is the cause of his difficulty.

Yours truly,

Addiscombe, Croydon, January 22.

H. MARSHALL.

LEGAL QUERIES.

24/70. *Guaiacol*.—We cannot make trade-mark searches for correspondents, but you may be sure that nobody could have exclusive title in the words “Asthma Cure.”

28/12. *Sambo*.—You may keep 3 gallons of benzoline without a petroleum-licence. It must be kept in separate and securely-stopped bottles of not more than 1 pint capacity each, and each bottle should bear the label, “Benzoline—Highly Inflammable,” with your name and address. The Act does not make any other stipulation as to the storage of such benzoline; such conditions are only made in regard to petroleum kept under a licence. There is no limit to the quantity you may sell to any customer.

30/41. *U. A. C.*—The jury's finding in the Walsall Apothecaries Act case was clearly a verdict for the plaintiffs. They unanimously found that the defendant had practised illegally.

34/71. *Cocaine*.—Yes, cocaine is a poisonous vegetable alkalioid, and as such comes under part of the Poisons Schedule.

25/21. *R. H.*—You can inspect the articles of association of any registered company at Somerset House by paying 1s. We do not know who drew up the articles of the company you refer to.

35/14. *J. H. A.*—You should register your label as a trade-mark, indicating what you regard as the essential feature. See DIARY, 1897, page 210.

MISCELLANEOUS INQUIRIES.

29/16. *Ferrum*.—*Anæmia and Nervousness*.—You do not state the intestinal condition of the young lady whom you write about. If constipated, she should get pil. pro anæmiâ, DIARY, page 479, and the following mixture:—

Ferri et ammon. cit.	..	..	..	5ij.
Liq. arsenical.	..	..	..	5ss.
Tr. nucis vom.	..	..	..	℥xx.
Tr. aurantii.	..	..	..	℥ss.
Aq. ad	..	..	..	℥vj.

M. et S.

Dose: A tablespoonful in as much water at meal-times daily.

27/55. *C. H. M.*—The same reply refers to the ointment.

25/70. *B. H. A.*—Sulphur Skin-lotion.—The very small sample (3ss.) of the lotion, which is very good for removing pimples, &c., from the face, is practically glycerine and rose-water mixed with sulphur and carmine. You can make a similar preparation as follows:—

Precipitated sulphur	..	..	..	..	3j.
Carmine	..	..	..	..	gr. v.

Triturate thoroughly for ten minutes, then sift twice, and return to the mortar. Again triturate the powder with—

Warm glycerine	3v.
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gradually added so that the sulphur may be thoroughly broken down, then add—

Rose-water	3xxv.
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Mix.

25/90. *R. W. B.*—Breeches-paste.—The sample is pipe-clay slightly tinted with ultramarine (thumb-blue probably) and perfumed with oil of lemon.

24/72. *Canine.*—Dog-poisoning.—Often the last thing the owner of a dog does before calling in the chemist to poison it is to give it a thoroughly good meal. The result of this is that the poison simply sickens the dog, and, once he gets it up, it does him no harm. We know of several cases where from 3 gr. to 6 gr. of strychnine had been given to old dogs, and in those cases where the dogs did not vomit they were perfectly lively for six hours, when the symptoms of poisoning began to set in.

221/97. *Delta.*—Carboy-colours.—We quote a short selection for you, as we have not printed any for some time:—

Green—

Sulphate of copper	..	..	..	..	1 lb.
Common salt	..	..	..	..	3 lbs.
Hydrochloric acid	..	..	..	..	1 pint
Water	..	..	..	..	2 gallons

Dissolve the sulphate and salt in the water, add the acid, and set aside for several days, then decant the clear solution.

Garnet—

Bichromate of potash	..	..	..	..	1 lb.
Sulphuric acid	..	..	..	..	16 oz.
Water	..	..	..	..	2 gallons

Dissolve the bichromate in the water, then add the acid gradually, stirring all the time.

Blue—

Sulphate of copper	..	..	..	..	4 oz.
Solution of ammonia	..	..	..	..	a sufficiency
Water	..	..	..	..	2 gallons

Dissolve the sulphate of copper in 2 pints of water, and add solution of ammonia with constant stirring until the precipitate is redissolved, then add the rest of the water.

Orange—

Bichromate of potash	..	..	..	..	1 lb.
Nitric acid	..	..	..	..	8 oz.
Water	..	..	..	..	2 gallons

Dissolve the bichromate in the water, and add the acid.

Pink—

Chloride of cobalt	..	..	..	..	1 oz.
Carbonate of ammonia	..	..	..	..	1½ oz.
Water	..	..	..	..	2 gallons

Dissolve the chloride of cobalt in 1½ gallon of water, and the carbonate of ammonia in the rest, then add the latter solution to the former until the precipitate at first formed is redissolved.

Red—

Iodine	..	..	..	..	9viij.
Iodide of potassium	..	..	..	..	9viij.
Hydrochloric acid	..	..	..	..	10 oz.
Water	..	..	..	..	2 gallons

Dissolve the iodine and iodide in 8 oz. of water, and dilute with the rest, to which the acid has been added.

These colours can be deepened by omitting water—*i.e.*, stopping the addition of water when the desired shade is reached. On the contrary, they may be lightened by adding more water. Distilled water should be used, and the solutions must not be filtered through paper. It is best to let them deposit, then decant, or, if filtration is desired, plug the neck of a funnel with glass wool, and strain through that.

31/5. *D. C.*—Marking Prices on Combs.—A darning-needle is good for this. Make the figures or letters small in one particular spot of the comb, and there only.

24/97. *Subscriber.*—The Best Drying Salve for Cows is ung. belladon. B.P., or if this is objected to:—

Alum.	..	..	..	..	..	3j.
Adipis	..	..	..	..	..	3iv.

M.

14/17. *C. & H.*—International Pharmacopœia.—The nearest approach to a book of this kind is Dr. Bruno Hirsch's "Universal Pharmacopœie" (in German), which you can obtain from Messrs. Williams & Norgate, 14 Henrietta Street, Covent Garden, W.C. You will find a reprint of the "International Pharmacopœia" submitted to the Brussels International Congress of Pharmacy in the 1885 volume of the *C. & D.*

23/41. *C. B.*—We shall publish a book on the subject shortly. There is no other quite satisfactory.

21/24. *A. S.* (N.S.W.).—Your samples have not arrived, although your letter was received on January 18. You will find formulas for similar preparations in volumes 48 and 49.

21/71. *A. B. C.*—Sauce (like Worcester):—

Liver	..	..	..	..	..	24 lbs.
Water	..	..	..	..	..	10 gallons

Boil the liver in the water for twelve hours; then chop it up and work with the water, strain, and add—

White vinegar	..	..	..	..	..	15 gallons
Walnut-ketchup	..	..	..	..	..	10 "
Mushroom-ketchup	..	..	..	..	..	10 "
Madeira wine	..	..	..	..	..	5 "
Canton soy	..	..	..	..	..	4 "
Table-salt	..	..	..	..	..	25 lb.
Powdered allspice	..	..	..	..	..	1 "
Powdered coriander	..	..	..	..	..	1 "
Powdered mace	..	..	..	..	..	½ "
Powdered cinnamon	..	..	..	..	..	½ "
Asafoetida	..	..	..	..	..	¼ "

Macerate the asafoetida in a winebottleful of brandy, and strain before adding it to the rest of the ingredients.

257/5. *For.*—Nit Oil and Ointment.—See our issues of August 1, page 238; August 8, page 270; and November 14, page 734—all 1896. Have you tried these? When we hear of obstinate cases we want to know all about the condition of the children. Medical preparations are a mere aid to soap and water and the small-tooth comb, the latter being essential for absolute freedom from the pest; while the children's linen, their hats, and bed-pillows should be frequently changed, as it is from these that the "nits" are conveyed to the head after the latter has been cleaned.

23/16. *Essex.*—Egg-julep.—A good formula appeared in our issue of October 31, 1896.

21/8. *Amyas Leigh.*—To Paraffin Corks.—Heat the corks in an oven carefully, so as not to scorch them, then dip in a basin of melted paraffin.

Dentifrice-cream.—Make any white tooth-powder into a paste with a mixture of glycerine 1 part and water 3 parts.

14/49. *W.*—Red Mite in Canaries.—This parasite very often attacks canaries. To get rid of it, well dust the bird with insect-powder, especially under the wings, and as a further precaution paint the cage over with oil pini sylvestris, working it well into the cracks and crevices of the cage. A handkerchief or white cloth thrown over the cage every night will attract the insects after the cage has been painted over. Remove the handkerchief in the morning, destroying the parasites. If the bird takes a bath, add a teaspoonful or so of infusion of quassia to the bath-water.

273/23. *A. B.*—Cyanda Powder for flavouring sausages.—We should think this is an error for cumin (cumin) or coriander.

23/22. *R. T. W.*—Gold Paint.—The liquid is a solution of celluloid (or cellulose) in amyl acetate. It is generally made from celluloid shavings.

270/16. *Borgie* (St. Louis).—Lowe's Pills for health, appetite, and digestion.—We do not know the composition of these pills; indeed, they are not mentioned in the leading patent-medicine lists.

23/24. *Vermifuge*.—Worm-powders for Children.—See *C. & D.*, January 25 1896, page 122; April 25, 1896, page 580; and August 8, 1896, page 270.

6/28. *Inquisitive* (Pernambuco).—**Manufacture of Compressed Yeast**.—We do not know any published book dealing solely with the manufacture of yeast. The following is the method employed in spirit-distilleries, whence most of the compressed yeast now emanates. About twelve hours after fermentation has set in, the yeast is removed from the surface of the fermenting-vat, and the process of skimming continued for twelve hours. The yeast is mixed with water and strained to remove grains; it is then washed by decantation with water two or three times, rejecting the young and weak cells which come to the surface. The rest is passed through a filter-press, and it constitutes the compressed yeast of commerce. This is, of course, a mere outline of the process, and there are many essential details which are known to the experienced only; indeed, one well-known English chemist spent nearly ten years in perfecting a process of manufacture, covering his methods by patents, before it became an industry in England, and that is not so very long ago.

Tomato-paste by the Portuguese System.—We do not know how this is made. Can anyone tell us?

23/15. *Torquay*.—**Browning for Gun-barrels**.—

Sweet spirit of nitre	..	..	..	..	3j.
Black sulphur	..	..	..	..	3j.
Tincture of perchloride of iron	..	..	..	..	3ij.
Corrosive sublimate	..	..	..	..	3ss.
Sulphate of copper	..	..	..	..	3iss.
Nitric acid	..	..	..	..	3j.
Hydrochloric acid	..	..	..	..	3j.
Water	..	..	..	..	3xl.
Dissolve and mix.	..	..	..	..

Bluing Solution for Gun-barrels.—Liq. antimon. chlorid.

Metal-workers' Recipes.—"The Metal-worker's Handy-book of Receipts and Processes," by Mr. W. T. Brannt (Sampson Low), is satisfactory and reliable.

22/3. *Eos*.—**Syrup of Figs**.—See 1897 DIARY, page 483.

25/32. *Mazzaontinto*.—**Liquid Soap**.—See *C. & D.*, October 12, 1895, page 573.

26/7. *Kingdom*.—**Hair-curling Fluid**.—We have given three formulae within the last six months. See *C. & D.*, July 4, 25, and August 29, 1896.

24/21. *A. H.* (Canada).—A formula for Mosquito-lotion is given in *C. & D.*, July 11, 1896, page 45; but we must repeat the warning, given so often in these columns, that man has not yet discovered the lotion which will prevent the mosquito biting him.

273/16. *W. P. T.*—**Gold-assaying**.—The method of assaying which you suggest would not do at all for gold companies. You should consult a work on assaying, such as Brown's "Manual" (Trübner, 9s.).

230/65. *Zeta*.—See reply to "Kingdom." **Shampoo-liquid**.—See *C. & D.*, May 18, 1875, page 695.

INFORMATION WANTED.

The Editor will be obliged for replies to the following from any who can furnish the information.

24/46. Maker of Motex Moth Exterminator.

30/45. Makers of Kendall's spavin cure, or where obtainable.

30/53. Best house for medicine-chests for the shipping-trade?

34/9. Maker of indiarubber bottle-caps for shop-bottles, fitted with an indiarubber ring and string to attach to the bottle.

15/12. Blacklead, C in diamond N.: will the inquirer please communicate with us?

9/18. How is phosphorised pollard prepared? [This is the article recommended by the New South Wales Land Department for killing rabbits.]

Coming Events.

Notices of Association and Society Meetings will be inserted in this section free of charge, if we receive intimation of such meetings by Wednesday of the week previous to that in which the meetings are to be held.

Monday, February 8.

Bradford and District Chemists' Association. Mr. W. L. Howie will deliver a lecture on "From Mont Blanc to the Matterhorn," in the Mechanics' Institute, at 8 P.M.

Tuesday, February 9.

Pharmaceutical Society, 17 Bloomsbury Square, W.C., at 8 P.M. Mr. A. C. Seward, M.A., will deliver a lecture on "Fossil Plants."

Midland Pharmaceutical Association, Mason College, Birmingham, at 8.30 P.M. Dr. Thomas Wilson on "Doctors and Medicine-men."

Aberdeen Chemists' Annual Assembly, New Trades Hall, Belmont Street, at 8.15 P.M. Concert-tickets (single), 1s. 6d. each (including tea). Concert and Dance (double tickets), 6s. 6d. (including refreshments). Tickets may be had from the members of committee and the Secretaries of the Senior and Junior Associations.

Royal Institution of Great Britain, Albemarle Street, W., at 3 P.M. Professor A. D. Waller, M.D., F.R.S., on "Animal Electricity."

Wednesday, February 10.

Junior Pharmacy Ball, Portman Rooms, Baker Street, W., at 9 P.M.

Brighton Junior Association of Pharmacy, Newbury Hall, at 9 P.M. Paper by Dr. P. M. Short.

Midland Chemists' Assistants' Association, Exchange Rooms, Birmingham, at 9.15 P.M. Mr. F. H. Aleock on "The Studies of a Pharmacist, with illustrations from the British Pharmacopœia." (Lime-light views.)

Society of Arts, John Street, Adelphi, at 8 P.M. "The Chemistry of Tea," by Mr. David Crole.

Manchester Pharmaceutical Association. Illustrated lecture on "Living Tissues as Chemical Reagents," by Dr. R. B. Wild, in the "General Theatre" of the Medical School, Owens College (Coupland Street entrance).

Thursday, February 11.

Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 9 P.M. Short papers by members.

Society of Arts, Imperial Institute, at 4.30 P.M. "The Progress of Science-teaching in India," by Professor Jagadis Chundra Bose.

Halifax and District Chemists' Association, Old Hall, Old Cock Hotel. Address by Dr. Dolan.

Friday, February 12.

Edinburgh Chemists' Assistants' and Apprentices' Association, 36 York Place, at 9.15 P.M. Mr. George Sinclair on "Progress in Pharmacy." "The Profession of Pharmacy," by Mr. W. Makepeace Lock (from an assistant's point of view).

Aberdeen Junior Chemists' Association, 21 Bridge Street, at 9.30 P.M. Mr. R. Clegg on "Sound."

Royal Institution of Great Britain, Albemarle Street, W., at 9 P.M. Professor John Milne on "Recent Advances in Seismology."

Saturday, February 13.

Royal Institution of Great Britain, Albemarle Street, W., at 3 P.M. Mr. Walter Frewen Lord on "The Growth of the Mediterranean Route to the East."

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Professor Dr. ESCHERICH, Graz, in his article on pernicious anæmia, *Wiener klin. Wochenschrift* (clinical weekly journal, Vienna), 1892, No. 13 and 14, quotes the following case:—

Miss J. List, aged 14, lives under very unfavourable conditions, is overworked, and has not yet menstruated; exhibits great pallor of face, lassitude, nausea; has no appetite yet shows an inclination to eat such substances as chalk, paper, &c., &c. On admission to the Hospital on October 28 the patient shows typical signs of acute chlorosis; extreme pallor of face and of the mucous membranes, lassitude and great muscular weakness. Microscopical examination of the blood reveals high-grade pallor and a considerable divergence in the size of the red blood-corpuscles:—

Number of red blood-corpuscles, 2,505,000; number of white blood-corpuscles, 7,000; relation of white to red, as 1 : 350.

Showing Hæmoglobin (Hb), according to Fleischl, equal to 15 per cent.

Given the normal number of erythrocytes in this case to be five millions, calculation shows a diminution of Hb to 15 per cent. to a loss of only 50 per cent. of blood-corpuscles of the size of 84μ , or to about a third of the normal.

Graeber, in his hæmatological researches, states, with great force and lucidity, that in typical chlorosis the number of blood-corpuscles be not at all, or only to a very small extent, diminished, but their shape and size be greatly altered, and especially their colouring power be enormously reduced. Although further clinical investigations prove that Graeber's statement cannot be upheld in its full force in all cases, yet we can in some forms of anæmia but adhere to his clear and precise definition. The case of this girl List is not one of simple chlorosis (it is rather a case of anæmia supervening on chlorosis), yet it indicates a characteristic diminution of Hæmoglobin in every blood-corpuscle, and this is the more apparent as a comparison of the condition of the blood in pernicious anæmia, where the number of 715,600 erythrocytes show almost the same colouring power per c.mm. as the 2,505,000 as shown above.

This case, moreover, showed in its further development the peculiarity (said by Graeber to be characteristic in chlorosis) that during a course of iron medication (in this instance Liq. Ferro-mangani Saccharati Dieterich-Helfenberg) the number of red blood-corpuscles was not materially augmented, but that the amount of Hæmoglobin was quickly and steadily increased. Six days after admission to the Hospital, and of giving Liq. Ferro-mangani Saccharati Dieterich-Helfenberg, a second examination of the blood of this patient was made, and it was shown that the

Number of red corpuscles was 2,887,000; and that of white corpuscles, 6,000; relation of red to white, as 1 : 338.

Hæmoglobin (Hb) equal to 35 per cent.

These figures show that whereas the Hæmoglobin had increased by 20 per cent., that of the blood-corpuscles had only increased by 7 per cent.

On being discharged from the Hospital on December 6 patient showed almost a normal amount of blood-corpuscles and 60 per cent. of Hæmoglobin.

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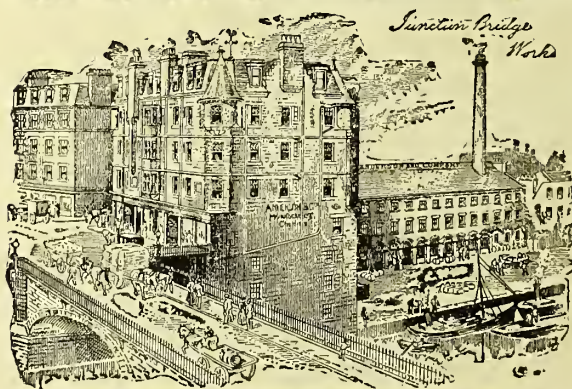
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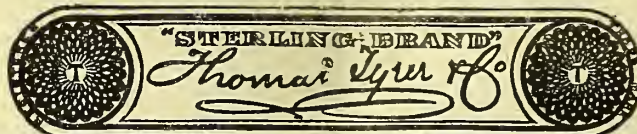
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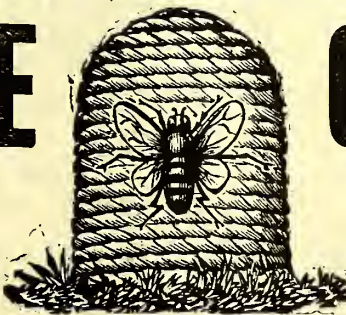
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WAX.**



**CERESINE
WAX.**

WHITE, NATURAL, YELLOW, & ORANGE. STOCK KEPT IN LONDON OF 15 DIFFERENT KINDS.

Supplied in square blocks, each wrapped in paper and packed in cases of 1 cwt. each.

None Genuine unless Cases, Wrappers, and Blocks are branded both with Maker's Name, "SARG," and the "BEEHIVE" Trade Mark.

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UNSURPASSED. WORLD FAMED

NATURAL RENNET POWDER.

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CHEESE AND BUTTER COLOURINGS.

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ARE YOU WATCHING BOTH ENDS?

THERE ARE
TWO SIDES
TO EVERY QUESTION.

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999 Chemists out of every **1000**

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The good old business proverb says:—

An article well bought is half sold.

Look up our ad. in the Winter Issue, Jan. 30, '97, page 175.

It means an extra 3d. in the 1/- profit for you.

BROOK, PARKER & CO.,

Wholesale Druggists, LEEDS RD., BRADFORD.

All Chemists, Druggists, and Stores should stock
ATKINS' LUNG HEALER,
which is being well advertised, and is a good
Remedy for Coughs, Colds, Asthma, Bronchitis, and
all Chest Complaints.
IT CONTAINS NO POISON.

MANUFACTURED ONLY AT

R. & G. ATKINS' HERBAL LABORATORY,
118 FALCON ROAD, CLAPHAM JUNCTION, LONDON.

Sold in Bottles at 1/- and 2/6 each. Obtainable from any
of the WHOLESALE HOUSES.

METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.

Discovered to be a general Anesthetic by Sir BENJAMIN W. RICHARDSON in 1867.

1-lb. Stopped Bottle, 12s.; 4-lb., 6s. 6d.; 4-oz., 3s. 6d.; 2-oz., 2s.

COMPOUND ANÆSTHETIC ETHER.

For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

OZONIC ETHER.

In 2-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and 12s.

PEROXIDE OF HYDROGEN.

First introduced as a Medicine by Sir BENJAMIN W. RICHARDSON.

ETHYLATE OF SODIUM

(Sir BENJAMIN W. RICHARDSON'S Formula), for removing Nævi, &c.

In 1-oz. and 2-oz. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. & 4s.

STYPTIC COLLOID.

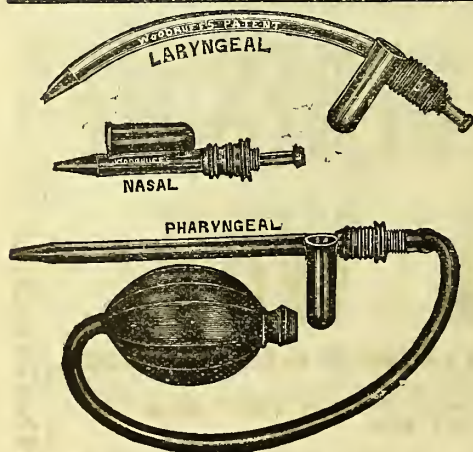
For promoting the Healing of Wounds by the first intention.

In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.

CHARCOAL CAPSULES.

Containing Pure Vegetable Ivory Charcoal.

In Boxes, 7s. 6d. each.



THE NEW CELLULOID SPRAY PRODUCER

(Woodruff's Patent).

An ideal apparatus for the administration and accurate use of Medicated Liquids or Solutions in minute quantities. The three forms shown are constructed so as to allow of the direct action of the Spray on the Larynx, Pharynx, and Mucous Membrane of the Nasal Cavity.

NETT TRADE PRICES:

LARYNGEAL , complete,	60/- doz.	Retail	6/6 each.
PHARYNGEAL	54/-	"	6/-
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Spare Mounts, Bellows, and Pipettes are also supplied.

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London, South of England, and the Colonies	} Messrs. H. GILBERTSON & SONS, HOLBORN CIRCUS, LONDON, E.C.
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Further particulars may be obtained on application to the Patentee—
T. WOODRUFF, PHARMACEUTICAL CHEMIST, Withington, MANCHESTER.

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Beg to call attention to the following Seasonable Articles, and would solicit trial orders.

EARTHENWARE FOOT WARMERS—

Brown Stoneware, *with* Screw Stoppers, four sizes, each 1/2, 1/6, 1/9, and 2/-.

DOULTON'S PATTERN, 2 pints, each 1/6; 3 pints, each 1/8.

TIN FOOT WARMERS—

Per doz. 27/-; cheap kind, oval shape, per doz. 9/-

BRONCHITIS KETTLES—

3½ pints (wide spouts, 16/-), per doz. 14/-

5 " (" " 20/-), " 17/6

7 " (" " 23/-), " 21/-

3 " **COMMON** (complete doz. 9/6), per doz. 10/-

COMMON OVAL, per doz. 10/6.

All the above prices are subject to 10 per cent. and 5 per cent. monthly account.

GLYCERINE PASTILLES—

Per lb. 1/9, net 1/6; 7 lbs. for 11/8, or 1/5 lb. net. Glycerine and Black Currant, Delectable, Voice, &c. (7 lb. quantities, assorted, 1/9 or 1/6 net), per lb. 1/10, net 1/6½.

DIGESTIVE CANDY (Peptonised)—

(7 lbs. for 10/9, net 9/2½), per lb. 1/9, net 1/6.

EUCALYPTUS ASTHMA CURE—

1/- Tins, no name on labels, per doz. 9/-, net 7/8½; 3 doz. (customer's name on label), per doz. 8/9, net 7/5½.

LICORICE, LINSEED, and CHLORODYNE LOZENGES—

7 lbs. for 6/3, net 5/4; 14 lbs. for 12/6, net 10/8½; 28 lbs. for 24/6, net 20/11½; 56 lbs. for 48/-, net 41/0½; 112 lbs. for 94/-, net 80/4½.

These can be highly recommended, quality and finish being Ar.

SHOW BOWLS and SHOW CARDS given with orders for 7 lbs. Candy or 14 lbs. Licorice, Linseed, and Chlorodyne Lozenges.

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WANTED,

An Agent in every Town for the Sale of

TIDMAN'S "CREAMOLINE" TOILET SOAP.

3 Tablets, handsomely wrapped, in showy and attractive box. Price 8/6 per dozen boxes. 5% Discount for Cash.

SOLE AGENCY IN EACH TOWN FOR TWELVE MONTHS GIVEN TO FIRST BUYER IN THAT TOWN OF ONE GROSS OF BOXES. CARRIAGE PAID.

Sample box free on receipt of 1s.

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PROPRIETORS OF TIDMAN'S SEA SALT.

A WORD TO DANCERS. BALL ROOM FLOOR POLISH!

A nice granulated preparation supplied in tins with sprinkler tops at
ONE SHILLING EACH.

WILL PRODUCE A GLOSS ON ANY FLOOR.

Does away with the Labour of Waxing!

Should be sprinkled lightly on the floor.

**THE ACTION OF THE DANCERS
WILL DO THE REST.**

7/- per doz., 20/- per 3 doz., 72/- per gross, net,
carriage paid on receipt of remittance.

BLEASDALE, LIMITED, YORK.

DISPENSING BOTTLES.

THE NORTH LONDON GLASS BOTTLE COMPANY

(I. ISAACS & CO., Proprietors)

Beg to inform the Trade that they have made a further reduction in the price of their Bottles, as follows:—

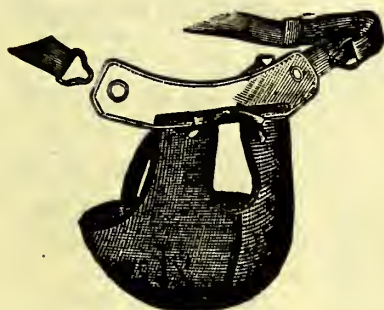
The NEW SHAPE FLAT BOTTLES, with rounded edges, plain or graduated—

3 & 4 oz. .. 7/6 per gross.	10 & 12 oz. .. 12/- per gross.
6, 8, 10, 12, 16, 20, 24, 32, 40, 48, 64, 80, 96, 128, 160, 192, 224, 256, 288, 320, 384, 448, 512, 576, 640, 704, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1280, 1344, 1408, 1472, 1536, 1600, 1664, 1728, 1792, 1856, 1920, 1984, 2048, 2112, 2176, 2240, 2304, 2368, 2432, 2496, 2560, 2624, 2688, 2752, 2816, 2880, 2944, 3008, 3072, 3136, 3200, 3264, 3328, 3392, 3456, 3520, 3584, 3648, 3712, 3776, 3840, 3904, 3968, 4032, 4096, 4160, 4224, 4288, 4352, 4416, 4480, 4544, 4608, 4672, 4736, 4800, 4864, 4928, 4992, 5056, 5120, 5184, 5248, 5312, 5376, 5440, 5504, 5568, 5632, 5696, 5760, 5824, 5888, 5952, 6016, 6080, 6144, 6208, 6272, 6336, 6400, 6464, 6528, 6592, 6656, 6720, 6784, 6848, 6912, 6976, 7040, 7104, 7168, 7232, 7296, 7360, 7424, 7488, 7552, 7616, 7680, 7744, 7808, 7872, 7936, 8000, 8064, 8128, 8192, 8256, 8320, 8384, 8448, 8512, 8576, 8640, 8704, 8768, 8832, 8896, 8960, 9024, 9088, 9152, 9216, 9280, 9344, 9408, 9472, 9536, 9600, 9664, 9728, 9792, 9856, 9920, 9984, 10048, 10112, 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(Patented in the United Kingdom and the Continent.)

An Entirely New Principle. Succeeds where all others fail. Guaranteed to hold any Rupture.



Replenish your Stock with the "WILLARDBELL" SUSPENSORIES

Material and Construction Surpassed by None.

Flexible Aluminium Plate Front, an Adjustable Shirt String on Pouch, also Adjustable Buckles.

Quality—

No. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Trade Price per dozen—														
6/	7/	10/	15/	18/	3/6	6/6	8/	9/	8/	8/6	24/	19/	24/	12/

Sizes:—Small, Medium, and Large, corresponding with the standard established for Suspensories.

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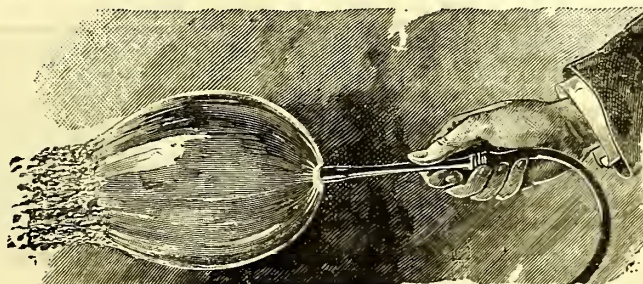
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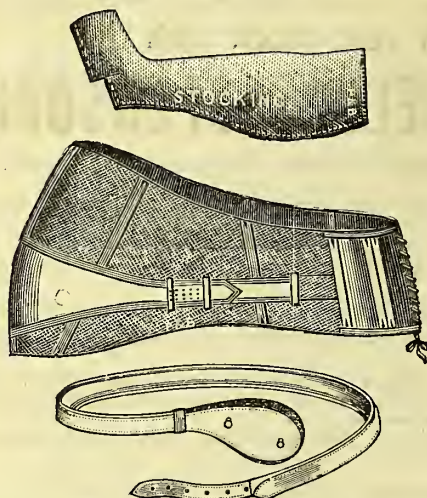
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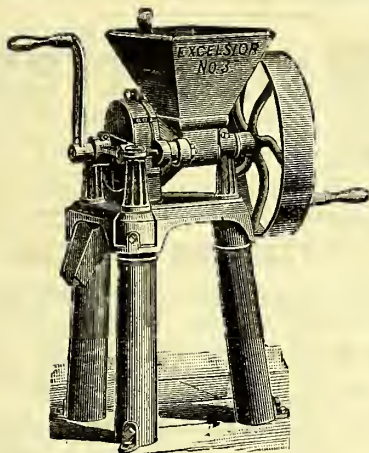
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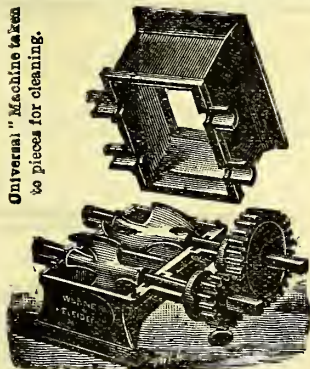
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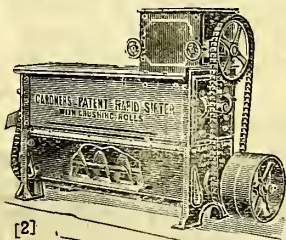
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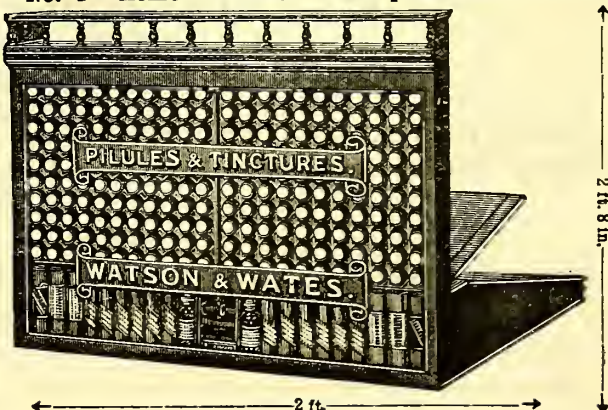
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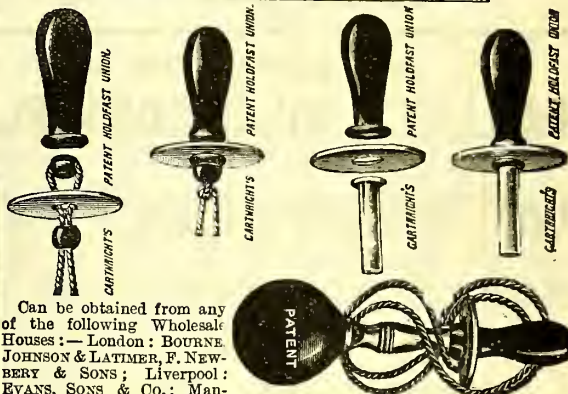
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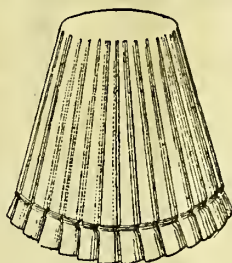
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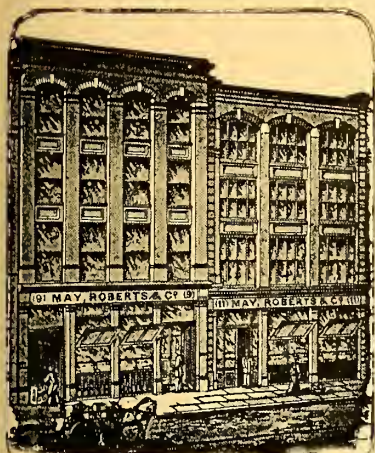
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ILLUSTRATED PRICE LIST.

Revised January, 1897.

Sent Post Free on application with Business Card.

Druggists' Sundries.
Packed Drugs & Perfumery.
Patent Medicines.

MAY, ROBERTS & CO., LONDON

Telegraphic Address: "FEEDING BOTTLES LONDON."

Telephone No. 6889, Holborn Viaduct Exchange.

REGISTERED

**NO TRAVELLERS.**

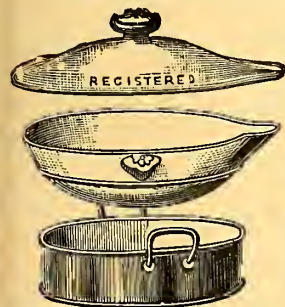
Their Expenses
 given to Buyers.

CARRIAGE PAID!

See Terms.

"MAY-ROBERTS" WATER BATH

(REGISTERED).



The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade Cream or other substance into the bottles or jars in which they are sold. In the "MAY-ROBERTS" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover.

1-PINT, 3/- each; 5-PINT, 5/6 each;
 10-PINT, 9/6 each.

MAY, ROBERTS & CO., LONDON, E.C.

Damschinsky's American Hair Dye.



MAY, ROBERTS & CO. have been appointed
 Special Agents for the above celebrated single-
 fluid Hair Dye.

Retail 2 -, less than 1 dozen,
 13/-.

Retail 2/-, not less than 1
 dozen, 12/6.

Retail 2/-, not less than 12
 dozen, 11/6.

GREEN FLINT DISPENSING BOTTLES.

FLAT WITHOUT EDGES, OR OVAL.

PRICES: FROM LONDON STOCK.

QUININE TINT. W. Brand.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
9/-	9/-	9/3	10/9	10/9	12/-	12/-	18/-	18/-	21/6	27/-	32/6	43/-	49/-	per gross.

QUININE TINT. M.R. Brand. Very Best Quality.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
8/9	8/9	8/9	9/10	9/10	11/3	11/3	16/9	16/9	20/-	24/-	30/-	40/6	47/-	per gross.

ORDINARY TINT. M.R. Brand. Second Quality.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
6/7	6/7	6/7	7/3	7/3	8/6	8/6	10/9	12/3	16/10	19/3	22/9	26/6	29/-	per gross.

PRICES: IN CRATES SENT DIRECT FROM THE WORKS.

W. Brand.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
8/10	8/10	9/-	10/3	10/3	11/6	11/6	17/6	17/6	21/-	26/-	31/6	41/6	47/-	per gross.

M.R. Brand. Very Best Quality.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
8/7	8/7	8/7	9/4	9/4	10/9	10/9	16/-	16/-	19/-	23/-	28/6	38/6	45/-	per gross.

M.R. Brand. Second Quality.

1	1 1/2	2	3	4	6	8	10	12	16	20	24	32	40	ounce.
6/5	6/5	6/5	7/-	7/-	8/-	8/-	10/3	11/9	16/-	18/3	21/9	25/3	28/9	per gross.

USUAL TERMS. NOT LESS THAN £5 WORTH CARRIAGE PAID.

MAY, ROBERTS & CO., 9 & 11 Clerkenwell Road, LONDON.

“APENTA”

THE BEST NATURAL APERIENT WATER

Per Case	25 Large Bottles	...	...	...	20/-
„	50 Small „	...	...	...	32/6
„	100 Quarter „	...	...	...	32/6

Carriage paid to any
Railway Station in the
United Kingdom.

5 per cent. Discount upon Orders for 10 Cases

Terms:—Six Months' Credit from Date of Invoice, Net Cash.

The retail prices printed on the labels are 1/3 per large bottle, 1/- per small bottle, and 6d. per quarter bottle.

THE APOLLINARIS COMPANY, LIMITED,

4 Stratford Place, Oxford Street, London, W.

Cadbury's Cocoa

**ABSOLUTELY PURE
therefore BEST.**

Cadbury's is "The Typical Cocoa of English Manufacture, Absolutely Pure." *The Analyst.*

NO CHEMICALS USED IN CADBURY'S AS IN THE SO-CALLED PURE FOREIGN COCOAS.

Telegrams:

"RELISH LEEDS."

Nat. Telephone

No. 954.

GOODALL, BACKHOUSE & COMPANY
7 to 15 WHITEHORSE STREET,
SOVEREIGN STREET AND VICTORIA ROAD,
LEEDS

MANUFACTURING CHEMISTS ♦ WHOLESALE DRUGGISTS,

Drug and Spice Grinders,

Patent Medicine Dealers, Druggists' Sundriesmen, Tin Canister Makers.

PROPRIETORS OF

YORKSHIRE RELISH AND GOODALL'S HOUSEHOLD SPECIALITIES.

PRICE LISTS OF DRUGS, PATENT MEDICINES, AND PACKED GOODS ON APPLICATION.

Net Cash Prices Quoted for Wholesale Quantities. ❀ ❀ ❀ Inquiries Solicited.